

10567639

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1626GMS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS	3	AUG 06	FSTA enhanced with new thesaurus edition
NEWS	4	AUG 13	CA/CAPplus enhanced with additional kind codes for granted patents
NEWS	5	AUG 20	CA/CAPplus enhanced with CAS indexing in pre-1907 records
NEWS	6	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS	7	AUG 27	USPATOLD now available on STN
NEWS	8	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS	9	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	10	SEP 13	FORIS renamed to SOFIS
NEWS	11	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS	12	SEP 17	CA/CAPplus enhanced with printed CA page images from 1967-1998
NEWS	13	SEP 17	CAPplus coverage extended to include traditional medicine patents
NEWS	14	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	15	OCT 02	CA/CAPplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	16	OCT 19	BEILSTEIN updated with new compounds
NEWS	17	NOV 15	Derwent Indian patent publication number format enhanced
NEWS	18	NOV 19	WPIX enhanced with XML display format
NEWS	19	NOV 30	ICSD reloaded with enhancements
NEWS	20	DEC 04	LINPADOCDB now available on STN
NEWS	21	DEC 14	BEILSTEIN pricing structure to change
NEWS	22	DEC 17	USPATOLD added to additional database clusters
NEWS	23	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS	24	DEC 17	DGENE now includes more than 10 million sequences
NEWS	25	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS	26	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS	27	DEC 17	CA/CAPplus enhanced with new custom IPC display formats
NEWS	28	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS	29	JAN 02	STN pricing information for 2008 now available
NEWS	30	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	31	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new

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custom IPC display formats
NEWS 32 JAN 28 MARPAT searching enhanced
NEWS 33 JAN 28 USGENE timeliness enhanced
NEWS 34 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 35 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 11:55:16 ON 28 JAN 2008

=>

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 11:55:33 ON 28 JAN 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 JAN 2008 HIGHEST RN 1000849-38-6

DICTIONARY FILE UPDATES: 27 JAN 2008 HIGHEST RN 1000849-38-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

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TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

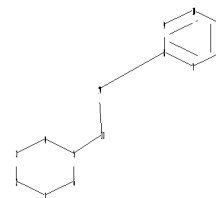
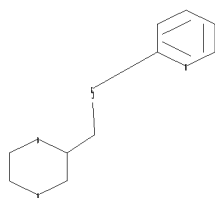
Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10567639.str



chain nodes :

13 14

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12

chain bonds :

5-13 8-14 13-14

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

exact/norm bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-14 13-14

exact bonds :

5-13

normalized bonds :

10567639

7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
containing 1 : 7 :

G1:O,S

Match level :

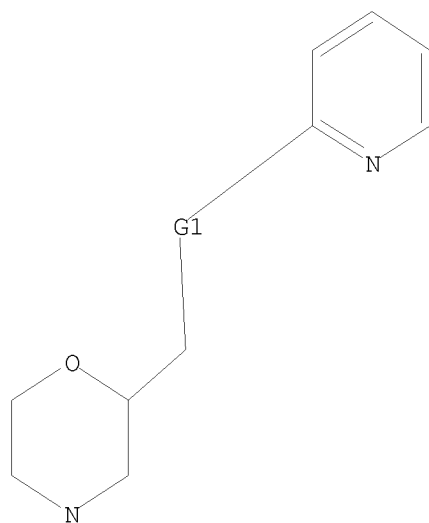
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 11:55:55 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 13 TO ITERATE

100.0% PROCESSED 13 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 44 TO 476

PROJECTED ANSWERS: 1 TO 80

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L2 1 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 11:56:24 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 304 TO ITERATE

100.0% PROCESSED 304 ITERATIONS 54 ANSWERS
SEARCH TIME: 00.00.01

L3 54 SEA SSS FUL L1

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	178.82	179.03

FILE 'HCAPLUS' ENTERED AT 11:56:33 ON 28 JAN 2008
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FILE COVERS 1907 - 28 Jan 2008 VOL 148 ISS 5
FILE LAST UPDATED: 27 Jan 2008 (20080127/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3
L4 7 L3

=> s l4 and py<=2003
23975367 PY<=2003
L5 0 L4 AND PY<=2003

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	10.76	189.79

FILE 'REGISTRY' ENTERED AT 11:59:09 ON 28 JAN 2008
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 JAN 2008 HIGHEST RN 1000849-38-6
DICTIONARY FILE UPDATES: 27 JAN 2008 HIGHEST RN 1000849-38-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

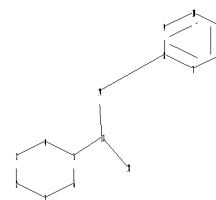
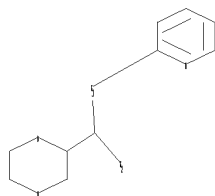
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10567639a.str



chain nodes :
13 14 18
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
chain bonds :

10567639

5-13 8-14 13-14 13-18
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-14 13-14 13-18
exact bonds :
5-13
normalized bonds :
7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
containing 1 : 7 :

G1:O,S

G2:CH3,Ph,Ak

Match level :

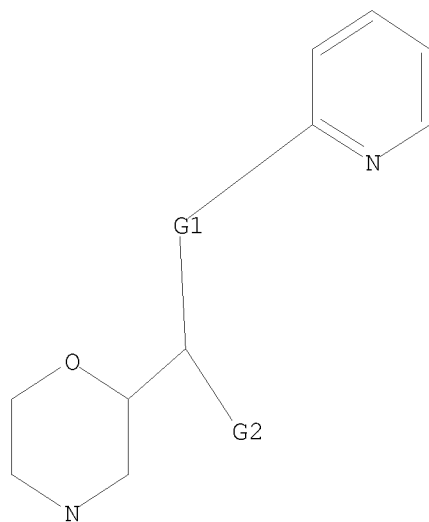
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:CLASS 18:CLASS

L6 STRUCTURE UPLOADED

=> d 16

L6 HAS NO ANSWERS

L6 STR



G1 O,S

G2 Me,Ph,Ak

Structure attributes must be viewed using STN Express query preparation.

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=> s 16

SAMPLE SEARCH INITIATED 11:59:33 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 4 TO ITERATE

100.0% PROCESSED 4 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 4 TO 200

PROJECTED ANSWERS: 1 TO 80

L7 1 SEA SSS SAM L6

=> s 16 sss full

FULL SEARCH INITIATED 11:59:41 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 113 TO ITERATE

100.0% PROCESSED 113 ITERATIONS

50 ANSWERS

SEARCH TIME: 00.00.01

L8 50 SEA SSS FUL L6

=> FIL HCAPLUS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

178.36

368.15

FILE 'HCAPLUS' ENTERED AT 11:59:49 ON 28 JAN 2008

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FILE COVERS 1907 - 28 Jan 2008 VOL 148 ISS 5

FILE LAST UPDATED: 27 Jan 2008 (20080127/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 11:55:16 ON 28 JAN 2008)

FILE 'REGISTRY' ENTERED AT 11:55:33 ON 28 JAN 2008

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L1 STRUCTURE UPLOADED
L2 1 S L1
L3 54 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 11:56:33 ON 28 JAN 2008

L4 7 S L3
L5 0 S L4 AND PY<=2003

FILE 'REGISTRY' ENTERED AT 11:59:09 ON 28 JAN 2008

L6 STRUCTURE UPLOADED
L7 1 S L6
L8 50 S L6 SSS FULL

FILE 'HCAPLUS' ENTERED AT 11:59:49 ON 28 JAN 2008

=> s l8

L9 7 L8

=> s l9 and py<=2003

23975367 PY<=2003

L10 0 L9 AND PY<=2003

=> d l4 ibib abs hitstr tot

L4 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1176480 HCAPLUS

DOCUMENT NUMBER: 143:440426

TITLE: Substituted morpholine compounds for the treatment of
 central nervous system disorders, their preparation
 and pharmaceutical compositions

INVENTOR(S): Barta, Nancy S.; Glase, Shelly Ann; Gray, David L.;
 Reichard, Gregory A.; Simons, Lloyd J.; Xu, Weijan

PATENT ASSIGNEE(S): Warner-Lambert Company LLC, USA

SOURCE: U.S. Pat. Appl. Publ., 85 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2005245519	A1	20051103	US 2005-119210	20050429
AU 2005238296	A1	20051110	AU 2005-238296	20050419
CA 2564994	A1	20051110	CA 2005-2564994	20050419
WO 2005105763	A1	20051110	WO 2005-IB1158	20050419
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,			

MR, NE, SN, TD, TG

EP 1745029	A1	20070124	EP 2005-733459	20050419
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,				
IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA,				
HR, LV, MK, YU				
CN 1950348	A	20070418	CN 2005-80013776	20050419
BR 2005010453	A	20071030	BR 2005-10453	20050419
JP 2007535530	T	20071206	JP 2007-510153	20050419
NL 1028924	A1	20051101	NL 2005-1028924	20050429
NL 1028924	C2	20060427		
IN 2006DN05782	A	20070803	IN 2006-DN5782	20061005
MX 2006PA12505	A	20061215	MX 2006-PA12505	20061027
KR 2007006881	A	20070111	KR 2006-722767	20061030
NO 2006005456	A	20070104	NO 2006-5456	20061127
PRIORITY APPLN. INFO.:			US 2004-567244P	P 20040430
			WO 2005-IB1158	W 20050419

OTHER SOURCE(S): MARPAT 143:440426

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to compds. of the formula I, which can be used in the treatment of central nervous system disorders. In compds. I, A is O or S; X is C1-10 alkyl, C2-8 alkenyl, aryl, heterocyclyl, C1-6 alkoxy, etc., with each group optionally substituted; and R1 - R5 are independently selected from H, OH, halo, C1-6 alkyl, aryl, C3-8 cycloalkyl, C2-6 alkenyl, C1-6 alkoxy, aryloxy, heterocyclyl, etc.; including pharmaceutically acceptable salts, enantiomers and diastereomers. The invention also relates to the preparation of I, pharmaceutical compns. comprising a compound I and a pharmaceutically acceptable carrier, as well as to the use of the compns. in the treatment of central nervous system disorders. Ring opening of (R,R)-phenylglycidol with 1-naphthol followed by silylation of the primary alc., mesylation of the secondary alc., and desilylation gave mesylate II, which underwent ring closure to the epoxide, ring opening with ammonium hydroxide and amidation with chloroacetyl chloride, resulting in the formation of amide III. Compound III was converted to the morpholine by intramol. cyclization and Red-Al reduction to give morpholine IV. Several compds., e.g., IV, express high inhibition of human norepinephrine transporter (hNET) and human serotonin transporter (hSERT).

IT 868685-72-7P 868688-15-7P, 2-[(Phenyl)(1-Oxopyridin-2-yloxy)methyl]morpholine

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

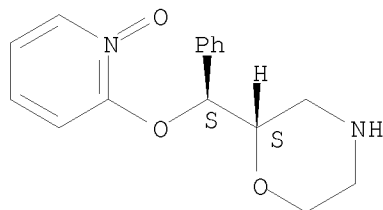
(drug candidate; preparation of substituted morpholine compds. for treatment of CNS disorders)

RN 868685-72-7 HCAPLUS

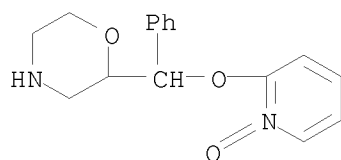
CN Morpholine, 2-[(S)-[(1-oxido-2-pyridinyl)oxy]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639



RN 868688-15-7 HCAPLUS
CN Morpholine, 2-[[[(1-oxido-2-pyridinyl)oxy]phenylmethyl]- (CA INDEX NAME)



L4 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:588645 HCAPLUS

DOCUMENT NUMBER: 143:115550

TITLE: Preparation of heterocyclic compounds as selective norepinephrine reuptake inhibitors for treating hot flashes, impulse control disorders and personality change due to a general medical condition

INVENTOR(S): Allen, Albert John; Hemrick-Luecke, Susan; Sumner, Calvin Russell; Wallace, Owen Brendan

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 337 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

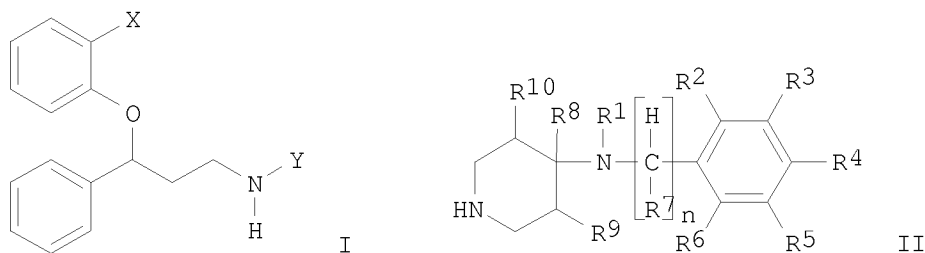
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005060949	A2	20050707	WO 2004-US38221	20041201
WO 2005060949	A3	20050909		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2548304	A1	20050707	CA 2004-2548304	20041201

EP 1729754 A2 20061213 EP 2004-811076 20041201
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
 CN 1889940 A 20070103 CN 2004-80036841 20041201
 JP 2007513945 T 20070531 JP 2006-543830 20041201
 US 2007015786 A1 20070118 US 2006-581015 20060530
 PRIORITY APPLN. INFO.: US 2003-529428P P 20031212
 WO 2004-US38221 W 20041201
 OTHER SOURCE(S): MARPAT 143:115550
 GI



AB The invention relates to a method of preventing or treating hot flashes, vasomotor symptoms, impulse control disorders or personality change due to a general medical condition, comprising administering to a patient in need thereof a therapeutically effective amount of a selective norepinephrine reuptake inhibitor selected from atomoxetine, reboxetine, I [X = alkylthio; Y = alkyl], II [n = 1-3; R1 = alkyl, alkenyl, cycloalkyl, etc.; R2-R4 = H, alkyl, alkoxy, etc.; R5-R6 = H, alkyl, alkoxy, halo; R7-R8 = H, alkyl; R9-R10 = H, halo, OH, CN, alkyl, alkoxy], etc. Over 200 title compds. such as I, II and other heterocyclic compds. disclosed, were prepared. E.g., a 2-step synthesis of N-(2-methylpropyl)-N-[(2-fluorophenyl)methyl]piperidin-4-amine fumarate, starting from tert-Bu 4-(2-methylpropylamino)piperidine-1-carboxylate and 2-fluorobenzaldehyde, was given. The preferred exemplified title compds. exhibit a Ki value less than 1 μ M, more preferably less than 500 nM at the norepinephrine transporter as determined using the scintillation proximity assay.

IT 847687-28-9P 847687-29-0P 847687-33-6P
 847687-34-7P 847687-35-8P 847687-36-9P
 847687-39-2P 847687-40-5P 847687-43-8P
 847687-46-1P 847687-47-2P 847687-50-7P
 847687-51-8P 847687-53-0P 847687-54-1P
 847687-56-3P 847687-57-4P 847687-59-6P
 847687-60-9P 847687-63-2P 847687-64-3P
 847687-66-5P 847687-67-6P 847687-69-8P
 847687-70-1P 847687-75-6P 847687-76-7P
 847687-77-8P 854140-35-5P

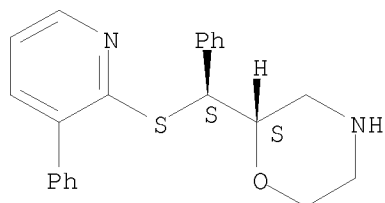
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heterocyclic compds. as selective norepinephrine reuptake inhibitors for treating hot flashes, impulse control disorders and personality change due to general medical condition)

10567639

RN 847687-28-9 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

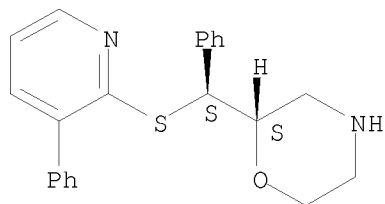


RN 847687-29-0 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)-, (2E)-2-butenedioate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-28-9
CMF C22 H22 N2 O S

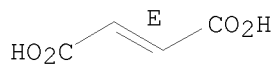
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

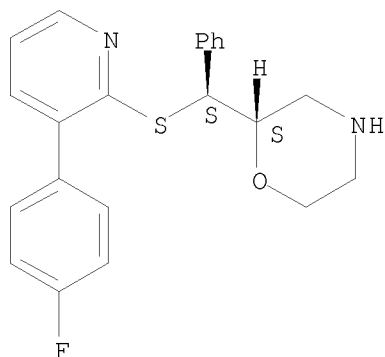
Double bond geometry as shown.



RN 847687-33-6 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

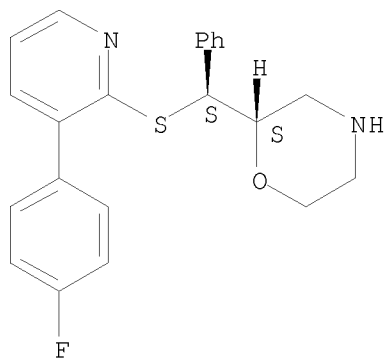


RN 847687-34-7 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-33-6
CMF C22 H21 F N2 O S

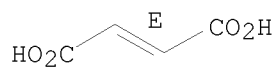
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

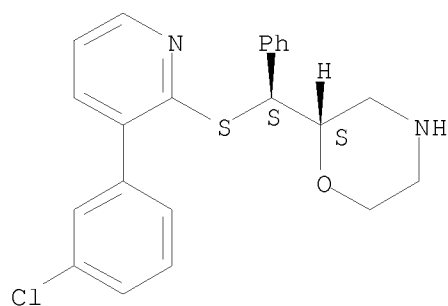
Double bond geometry as shown.



RN 847687-35-8 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

10567639

Absolute stereochemistry.

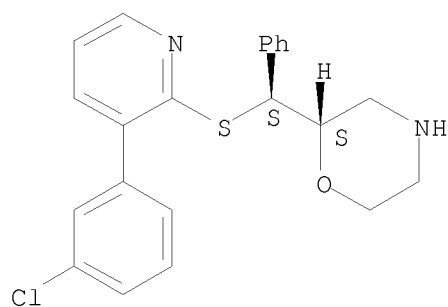


RN 847687-36-9 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-35-8
CMF C22 H21 Cl N2 O S

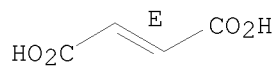
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

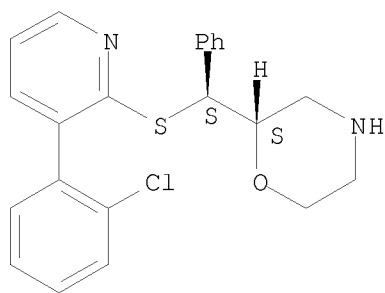
Double bond geometry as shown.



RN 847687-39-2 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

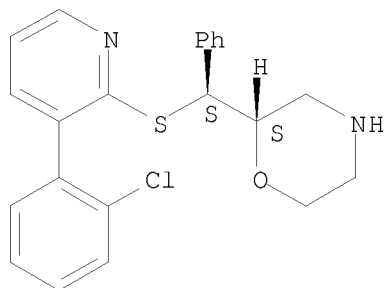


RN 847687-40-5 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-39-2
CMF C22 H21 Cl N2 O S

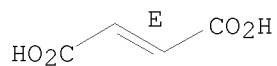
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

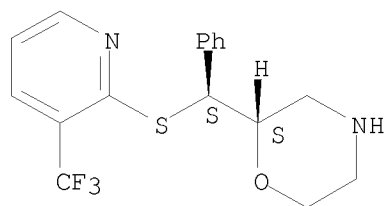
Double bond geometry as shown.



RN 847687-43-8 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

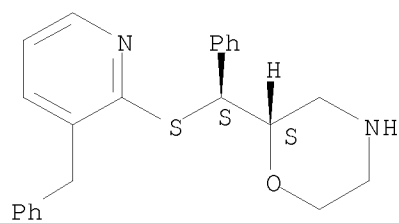
Absolute stereochemistry.

10567639



RN 847687-46-1 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

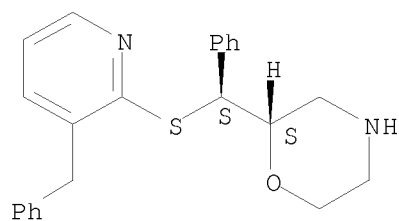


RN 847687-47-2 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-46-1
CMF C23 H24 N2 O S

Absolute stereochemistry.

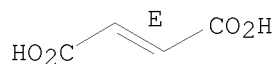


CM 2

CRN 110-17-8
CMF C4 H4 O4

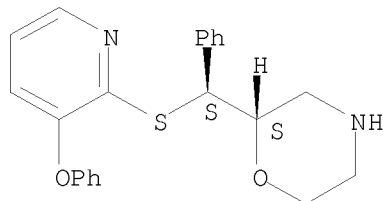
Double bond geometry as shown.

10567639



RN 847687-50-7 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

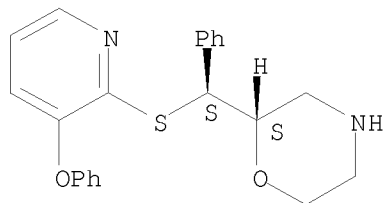


RN 847687-51-8 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-50-7
CMF C22 H22 N2 O2 S

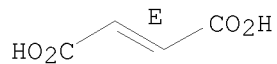
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

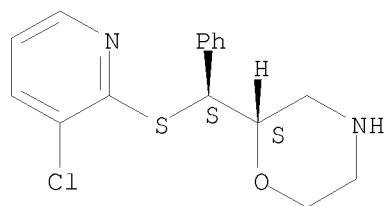
Double bond geometry as shown.



RN 847687-53-0 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

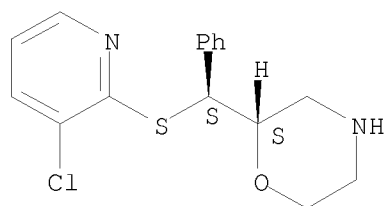


RN 847687-54-1 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-53-0
CMF C16 H17 Cl N2 O S

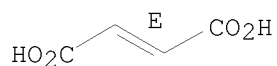
Absolute stereochemistry.



CM 2

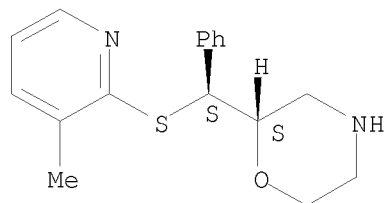
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-56-3 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



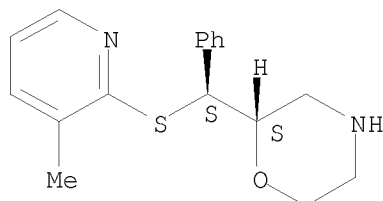
10567639

RN 847687-57-4 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-56-3
CMF C17 H20 N2 O S

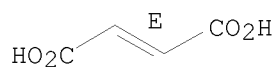
Absolute stereochemistry.



CM 2

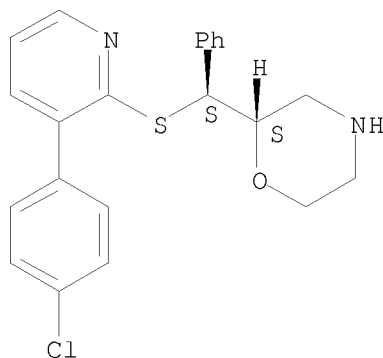
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-59-6 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-60-9 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

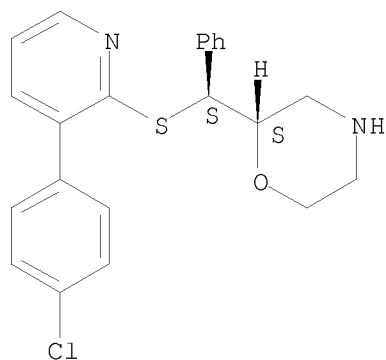
10567639

CM 1

CRN 847687-59-6

CMF C22 H21 Cl N2 O S

Absolute stereochemistry.

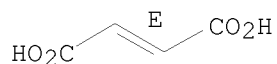


CM 2

CRN 110-17-8

CMF C4 H4 O4

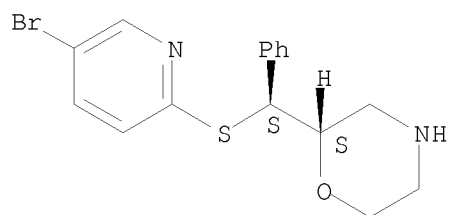
Double bond geometry as shown.



RN 847687-63-2 HCAPLUS

CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-64-3 HCAPLUS

CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

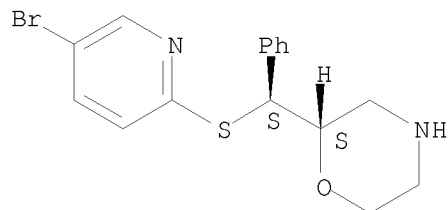
CM 1

CRN 847687-63-2

10567639

CMF C16 H17 Br N2 O S

Absolute stereochemistry.

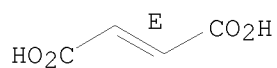


CM 2

CRN 110-17-8

CMF C4 H4 O4

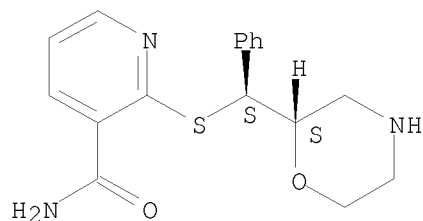
Double bond geometry as shown.



RN 847687-66-5 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[1S]-2-morpholinylphenylmethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-67-6 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[1S]-2-morpholinylphenylmethyl]thio]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

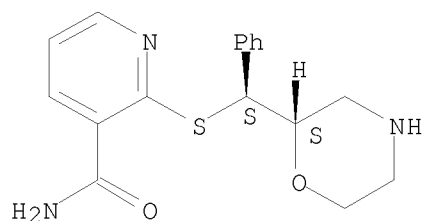
CM 1

CRN 847687-66-5

CMF C17 H19 N3 O2 S

Absolute stereochemistry.

10567639

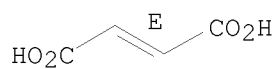


CM 2

CRN 110-17-8

CMF C4 H4 O4

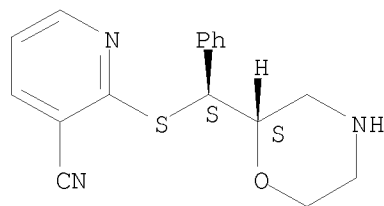
Double bond geometry as shown.



RN 847687-69-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-70-1 HCAPLUS

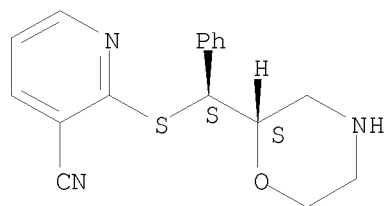
CN 3-Pyridinecarbonitrile, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 847687-69-8

CMF C17 H17 N3 O S

Absolute stereochemistry.



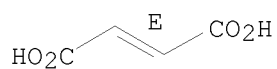
10567639

CM 2

CRN 110-17-8

CMF C4 H4 O4

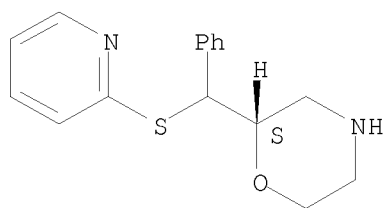
Double bond geometry as shown.



RN 847687-75-6 HCAPLUS

CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, (2S)- (CA INDEX NAME)

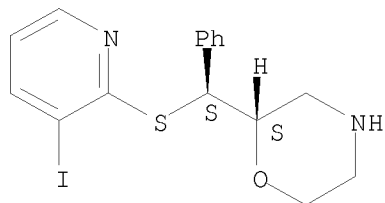
Absolute stereochemistry.



RN 847687-76-7 HCAPLUS

CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-77-8 HCAPLUS

CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

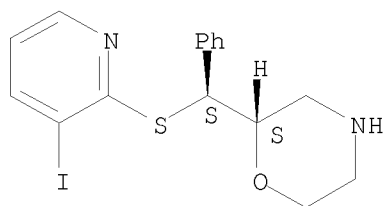
CM 1

CRN 847687-76-7

CMF C16 H17 I N2 O S

Absolute stereochemistry.

10567639

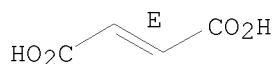


CM 2

CRN 110-17-8

CMF C4 H4 O4

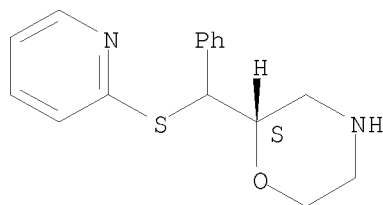
Double bond geometry as shown.



RN 854140-35-5 HCAPLUS

CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, monohydrochloride, (2S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

IT 847687-30-3P 847687-32-5P 847687-38-1P
847687-42-7P 847687-44-9P 847687-45-0P
847687-49-4P 847687-52-9P 847687-55-2P
847687-58-5P 847687-62-1P 847687-65-4P
847687-68-7P 847687-71-2P 847687-74-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

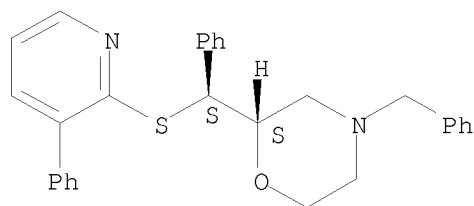
(preparation of heterocyclic compds. as selective norepinephrine reuptake
inhibitors for treating hot flashes, impulse control disorders and
personality change due to general medical condition)

RN 847687-30-3 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[(3-phenyl-2-
pyridinyl)thio]methyl]-, (2S)- (CA INDEX NAME)

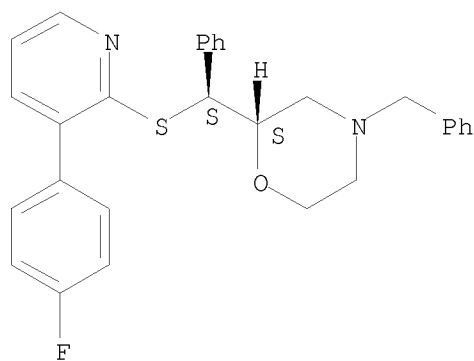
Absolute stereochemistry.

10567639



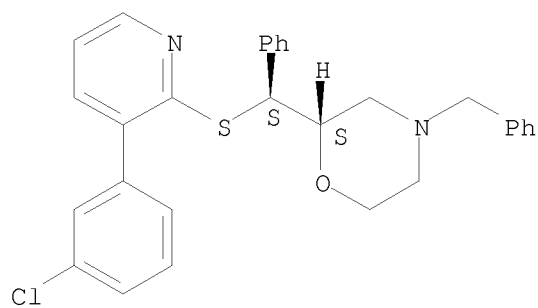
RN 847687-32-5 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-38-1 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

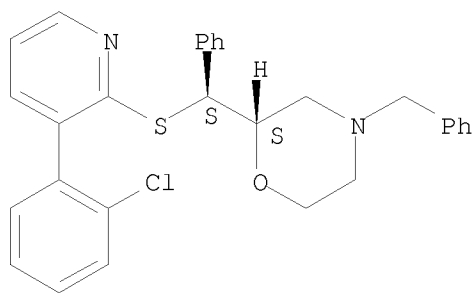
Absolute stereochemistry.



RN 847687-42-7 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

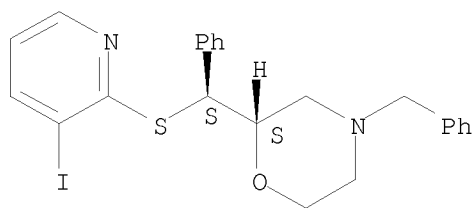
10567639



RN 847687-44-9 HCAPLUS

CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

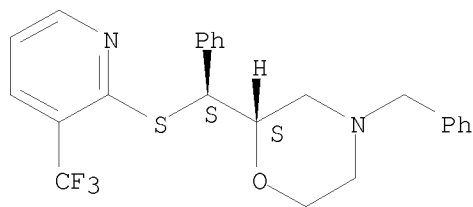
Absolute stereochemistry.



RN 847687-45-0 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

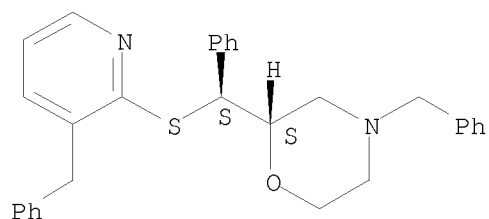


RN 847687-49-4 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

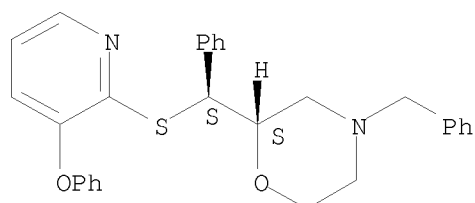
Absolute stereochemistry.

10567639



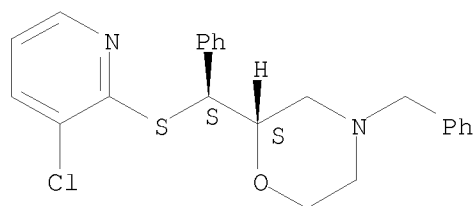
RN 847687-52-9 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxymethyl-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



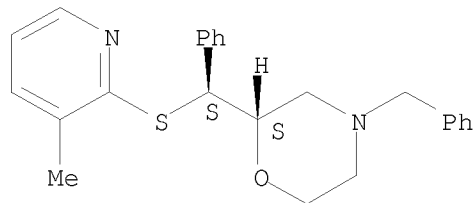
RN 847687-55-2 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-58-5 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

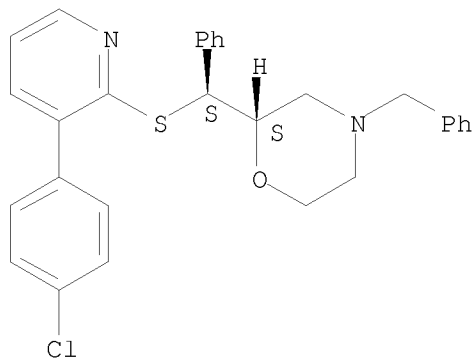


RN 847687-62-1 HCAPLUS

10567639

CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

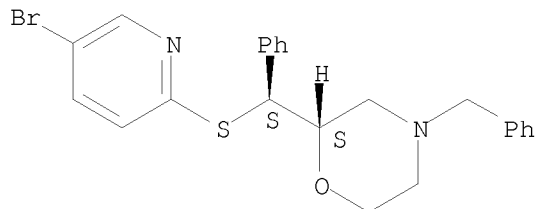
Absolute stereochemistry.



RN 847687-65-4 HCAPLUS

CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

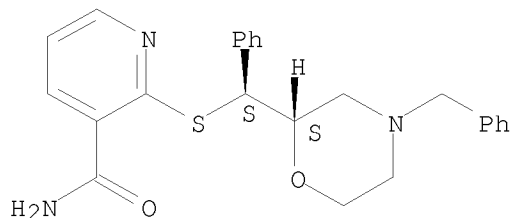
Absolute stereochemistry.



RN 847687-68-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

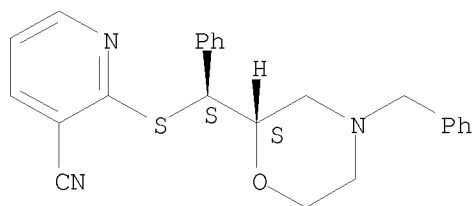


RN 847687-71-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

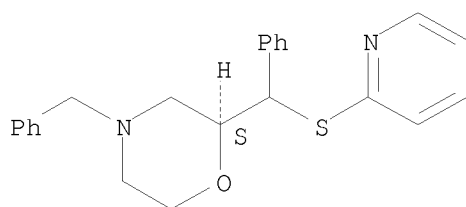
Absolute stereochemistry.

10567639



RN 847687-74-5 HCAPLUS
CN Morpholine, 4-(phenylmethyl)-2-[phenyl(2-pyridinylthio)methyl]-, (2S)-
(CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:523264 HCAPLUS

DOCUMENT NUMBER: 143:59831

TITLE: A preparation of aminopiperidine derivatives, useful for the treatment of cognitive failure

INVENTOR(S): Hatfield, Alan Kramer; Bymaster, Franklin Porter; McKinzie, David Lee; Tucker, Tina Marie; Keaffaber, Kirk Matthew; Sumner, Calvin Russell; Trzepacz, Paula Terese; Allen, Albert John; Kelsey, Douglas Kenneth; Michelson, David; Gehlert, Donald Richard; Yang, Charles Renkin

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 300 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005053663	A2	20050616	WO 2004-US37195	20041124
WO 2005053663	A3	20050811		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, VZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,			

10567639

EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2003-524450P

P 20031124

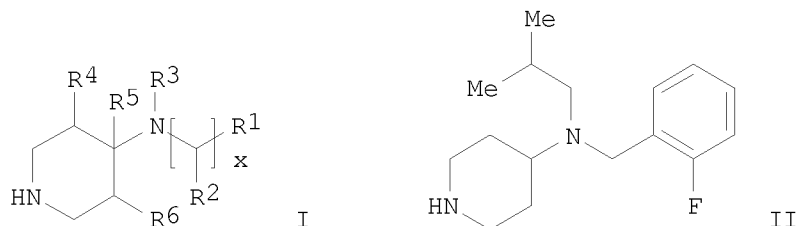
US 2003-524781P

P 20031125

OTHER SOURCE(S):

MARPAT 143:59831

GI



AB The invention relates to a preparation of aminopiperidine derivs. of formula I [wherein: x is 1-3; R¹ is (un)substituted phenyl; R² and R⁵ are independently H or alkyl; R³ is (cyclo)alkyl, alkenyl, or cycloalkylalkyl, etc.; R⁴ is H, halogen, or OH, etc.; R⁶ is H, halogen, CN, or alkyl, etc.], useful for the treatment of cognitive failure. Selective norepinephrine reuptake inhibitors were used to treat cognitive failure. For instance, fumarate salt of aminopiperidine derivative II was prepared via imination of 2-fluorobenzaldehyde by tert-Bu 4-[(2-methylpropyl)amino]piperidine-1-carboxylate, reduction of the obtained imine, and subsequent fumaric acid salt formation. The preferred invention compds. exhibit K_i values less than 500 nM at the norepinephrine transporter.

IT 847687-28-9P 847687-29-0P 847687-33-6P
847687-34-7P 847687-35-8P 847687-36-9P
847687-39-2P 847687-40-5P 847687-43-8P
847687-46-1P 847687-47-2P 847687-50-7P
847687-51-8P 847687-54-1P 847687-56-3P
847687-57-4P 847687-59-6P 847687-60-9P
847687-63-2P 847687-64-3P 847687-66-5P
847687-67-6P 847687-69-8P 847687-70-1P
847687-75-6P 847687-76-7P 847687-77-8P
854140-35-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

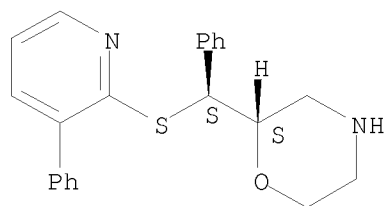
(preparation of aminopiperidine derivs. useful for the treatment of cognitive failure)

RN 847687-28-9 HCAPLUS

CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

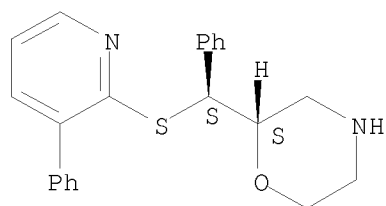


RN 847687-29-0 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)-,
(2E)-2-butenedioate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-28-9
CMF C22 H22 N2 O S

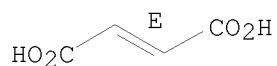
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

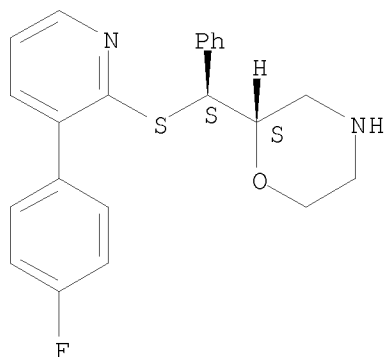
Double bond geometry as shown.



RN 847687-33-6 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

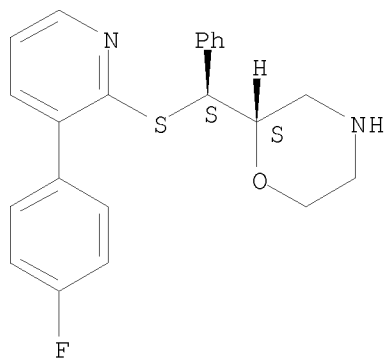


RN 847687-34-7 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-33-6
CMF C22 H21 F N2 O S

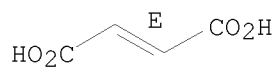
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

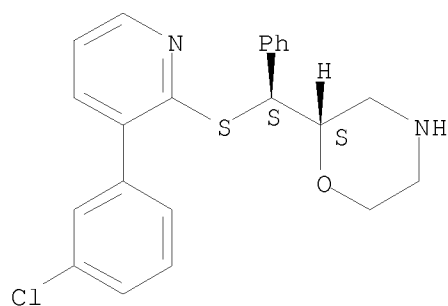
Double bond geometry as shown.



RN 847687-35-8 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

10567639

Absolute stereochemistry.

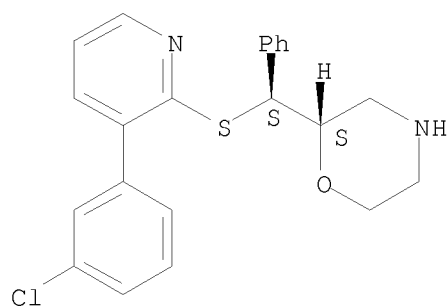


RN 847687-36-9 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-35-8
CMF C22 H21 Cl N2 O S

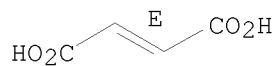
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

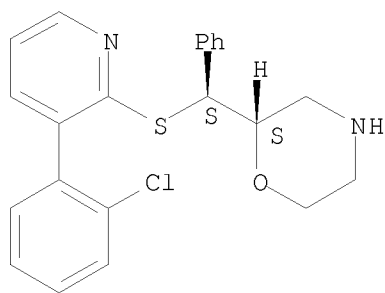
Double bond geometry as shown.



RN 847687-39-2 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

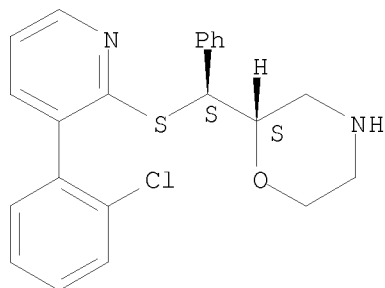


RN 847687-40-5 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-39-2
CMF C22 H21 Cl N2 O S

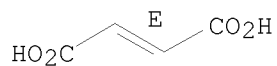
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

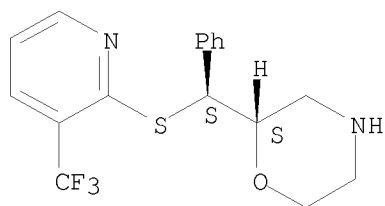
Double bond geometry as shown.



RN 847687-43-8 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

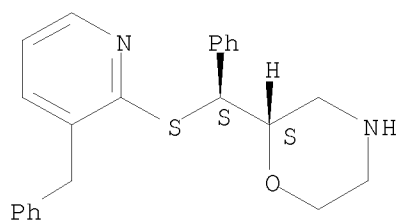
Absolute stereochemistry.

10567639



RN 847687-46-1 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

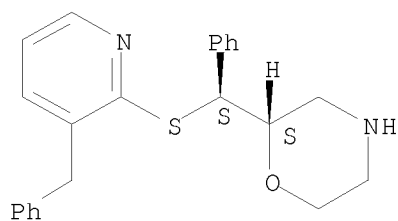


RN 847687-47-2 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-46-1
CMF C23 H24 N2 O S

Absolute stereochemistry.

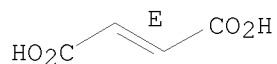


CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

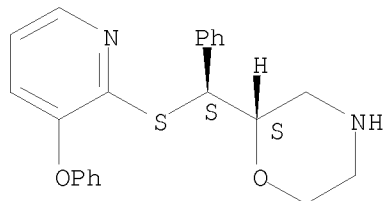
10567639



RN 847687-50-7 HCAPLUS

CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-51-8 HCAPLUS

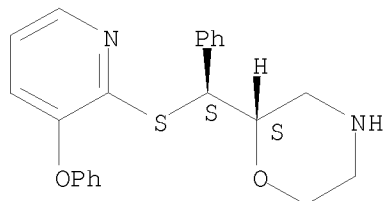
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-50-7

CMF C22 H22 N2 O2 S

Absolute stereochemistry.

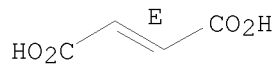


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-54-1 HCAPLUS

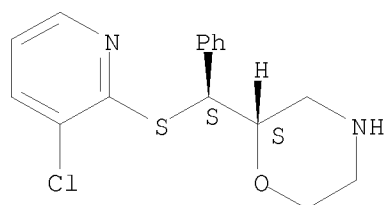
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

10567639

CRN 847687-53-0
CMF C16 H17 Cl N2 O S

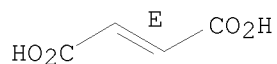
Absolute stereochemistry.



CM 2

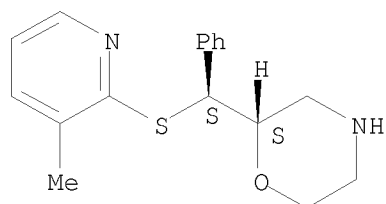
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-56-3 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



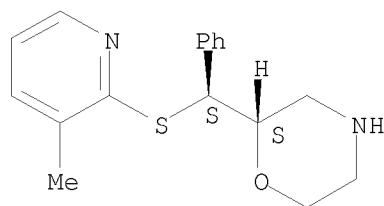
RN 847687-57-4 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-56-3
CMF C17 H20 N2 O S

Absolute stereochemistry.

10567639

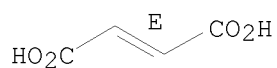


CM 2

CRN 110-17-8

CMF C4 H4 O4

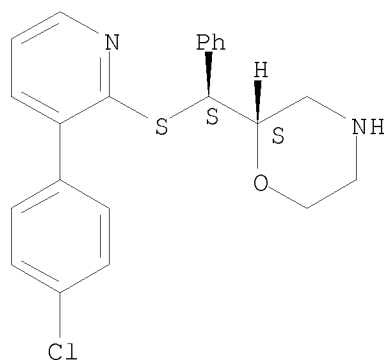
Double bond geometry as shown.



RN 847687-59-6 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-60-9 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

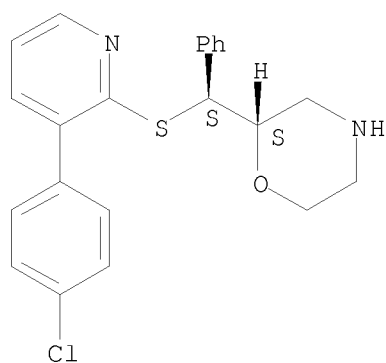
CM 1

CRN 847687-59-6

CMF C22 H21 Cl N2 O S

Absolute stereochemistry.

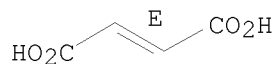
10567639



CM 2

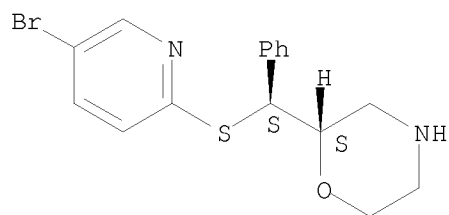
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-63-2 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



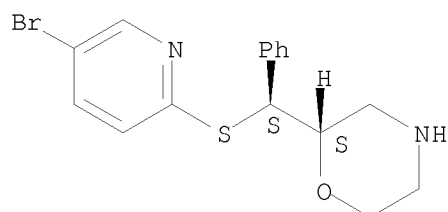
RN 847687-64-3 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-63-2
CMF C16 H17 Br N2 O S

Absolute stereochemistry.

10567639

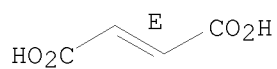


CM 2

CRN 110-17-8

CMF C4 H4 O4

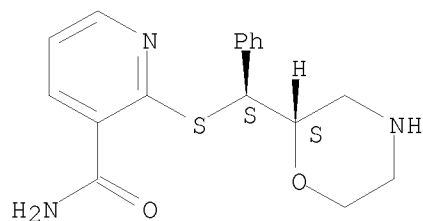
Double bond geometry as shown.



RN 847687-66-5 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[1-(S)-(2S)-2-morpholinylphenylmethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-67-6 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[1-(S)-(2S)-2-morpholinylphenylmethyl]thio]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

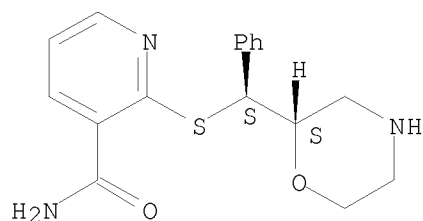
CM 1

CRN 847687-66-5

CMF C17 H19 N3 O2 S

Absolute stereochemistry.

10567639

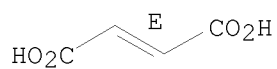


CM 2

CRN 110-17-8

CMF C4 H4 O4

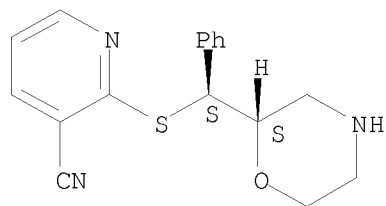
Double bond geometry as shown.



RN 847687-69-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-70-1 HCAPLUS

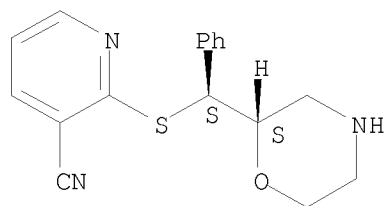
CN 3-Pyridinecarbonitrile, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 847687-69-8

CMF C17 H17 N3 O S

Absolute stereochemistry.



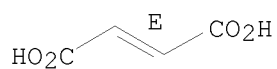
10567639

CM 2

CRN 110-17-8

CMF C4 H4 O4

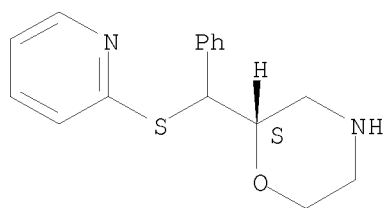
Double bond geometry as shown.



RN 847687-75-6 HCAPLUS

CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, (2S)- (CA INDEX NAME)

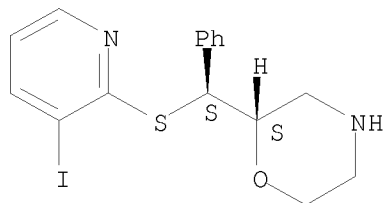
Absolute stereochemistry.



RN 847687-76-7 HCAPLUS

CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-77-8 HCAPLUS

CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

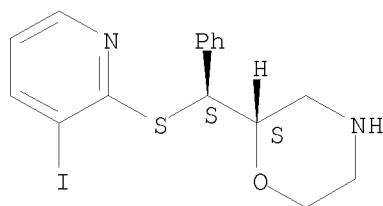
CM 1

CRN 847687-76-7

CMF C16 H17 I N2 O S

Absolute stereochemistry.

10567639

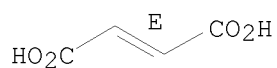


CM 2

CRN 110-17-8

CMF C4 H4 O4

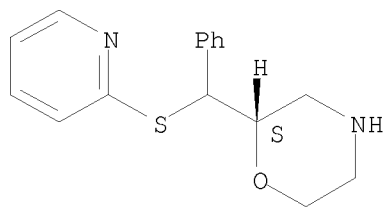
Double bond geometry as shown.



RN 854140-35-5 HCAPLUS

CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, monohydrochloride, (2S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

IT 847687-44-9

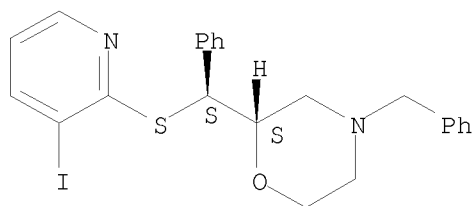
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of aminopiperidine derivs. useful for the treatment of
cognitive failure)

RN 847687-44-9 HCAPLUS

CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-4-
(phenylmethyl)-, (2S)- (CA INDEX NAME)

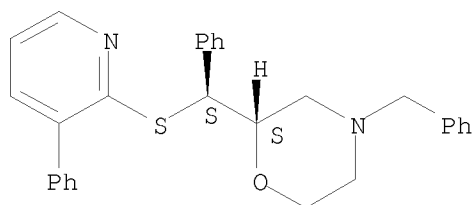
Absolute stereochemistry.

10567639



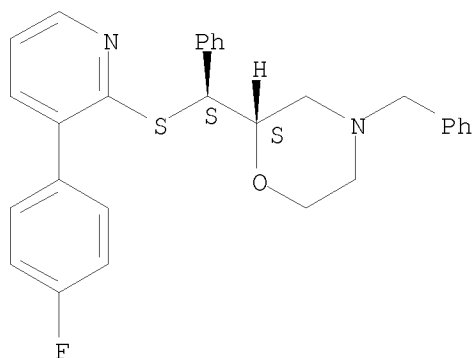
IT 847687-30-3P 847687-32-5P 847687-38-1P
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847687-58-5P 847687-62-1P 847687-65-4P
847687-68-7P 847687-71-2P 847687-74-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of aminopiperidine derivs. useful for the treatment of
cognitive failure)
RN 847687-30-3 HCAPLUS
CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[(3-phenyl-2-
pyridinyl)thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-32-5 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-
(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

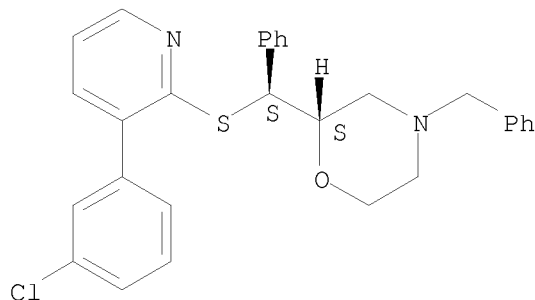


RN 847687-38-1 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-

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(phenylmethyl)-, (2S)- (CA INDEX NAME)

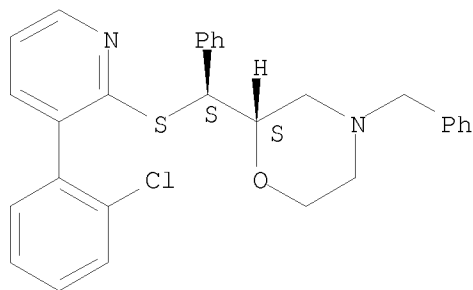
Absolute stereochemistry.



RN 847687-42-7 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

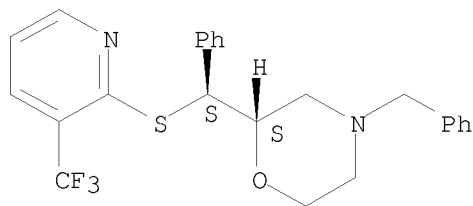
Absolute stereochemistry.



RN 847687-45-0 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

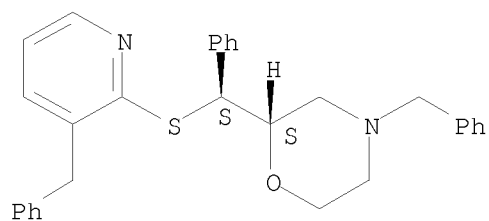


RN 847687-49-4 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

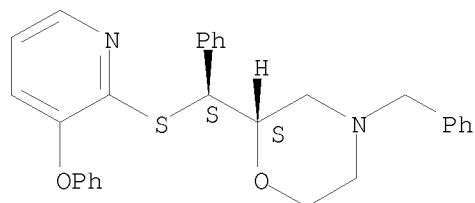
10567639



RN 847687-52-9 HCAPLUS

CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

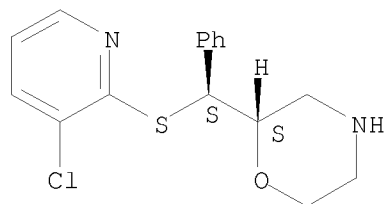
Absolute stereochemistry.



RN 847687-53-0 HCAPLUS

CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

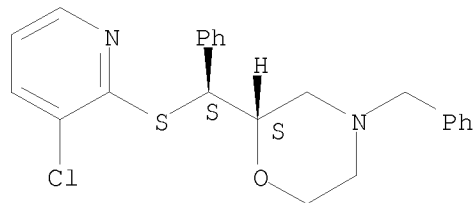
Absolute stereochemistry.



RN 847687-55-2 HCAPLUS

CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

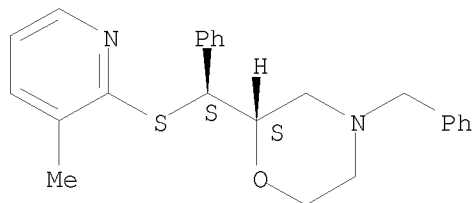


RN 847687-58-5 HCAPLUS

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CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

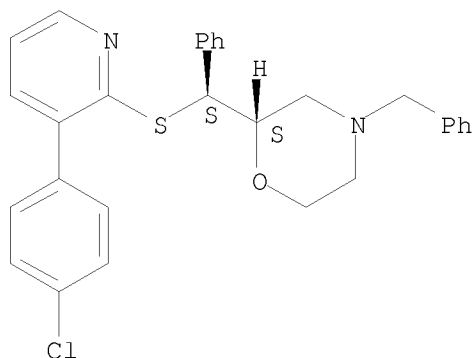
Absolute stereochemistry.



RN 847687-62-1 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

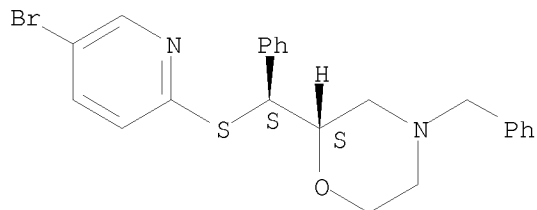
Absolute stereochemistry.



RN 847687-65-4 HCAPLUS

CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

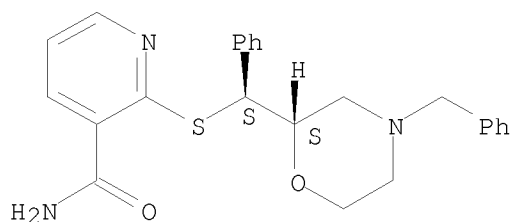


RN 847687-68-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

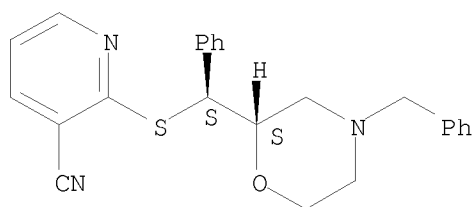
10567639



RN 847687-71-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

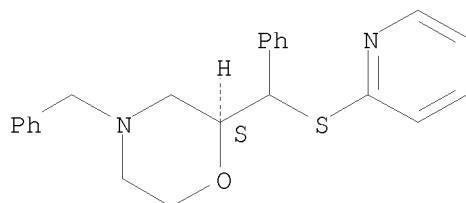
Absolute stereochemistry.



RN 847687-74-5 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[phenyl(2-pyridinylthio)methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:238982 HCAPLUS

DOCUMENT NUMBER: 142:316847

TITLE: Preparation of homochiral pyridinylmorpholines as

selective norepinephrine reuptake inhibitors

INVENTOR(S): Clark, Barry Peter; Gallagher, Peter Thaddeus

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

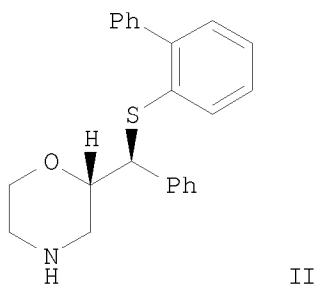
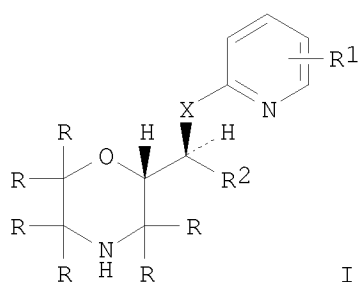
KIND

DATE

APPLICATION NO.

DATE

WO 2005023802 A1 20050317 WO 2004-US22313 20040809
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CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG
EP 1658287 A1 20060524 EP 2004-778025 20040809
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IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
US 2006258654 A1 20061116 US 2006-567639 20060208
PRIORITY APPLN. INFO.: GB 2003-19693 A 20030822
US 2003-514748P P 20031027
WO 2004-US22313 W 20040809
OTHER SOURCE(S): CASREACT 142:316847; MARPAT 142:316847
GI



- AB Title compds. I [X = S, O; R = H, alkyl; R1 = H, alkyl, alkoxy, halo, etc.; R2 = alkyl, Ph, etc.] are prepared For instance, (S)-(4-benzylmorpholin-2-yl)phenylmethanone (large scale preparation given) is selectively reduced to the (S,S) alc. and converted to the corresponding thiol in 3 addnl. steps. The thiol is reacted with 2-fluoro-3-phenylpyridine and debenzylated to give II. All example compds. exhibit a $K_i < 500$ nM at the norepinephrine transporter and all examples of I inhibit selectively the norepinephrine transporter relative to serotonin and dopamine by at least a factor of 5. I are useful for the treatment of, e.g., an addictive disorder, withdrawal syndrome, etc.
- IT 847687-29-0P 847687-33-6P 847687-35-8P
847687-43-8P 847687-46-1P 847687-50-7P
847687-53-0P 847687-56-3P 847687-59-6P
847687-63-2P 847687-66-5P 847687-69-8P
847687-75-6P 847687-76-7P 848137-69-9P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of homochiral pyridinylmorpholines as selective norepinephrine

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reuptake inhibitors)

RN 847687-29-0 HCAPLUS

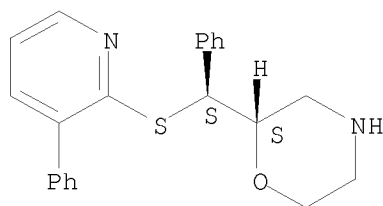
CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)-, (2E)-2-butenedioate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-28-9

CMF C22 H22 N2 O S

Absolute stereochemistry.

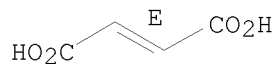


CM 2

CRN 110-17-8

CMF C4 H4 O4

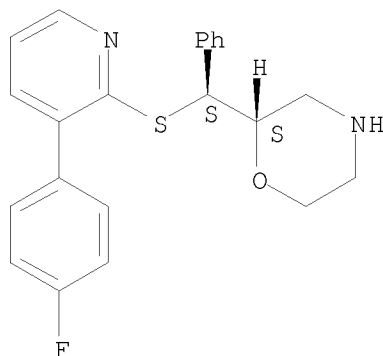
Double bond geometry as shown.



RN 847687-33-6 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

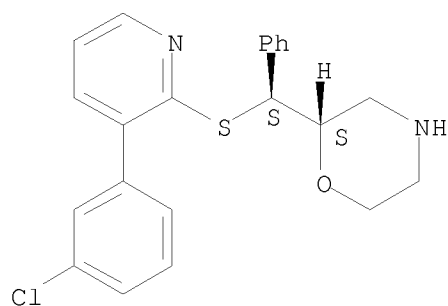


RN 847687-35-8 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

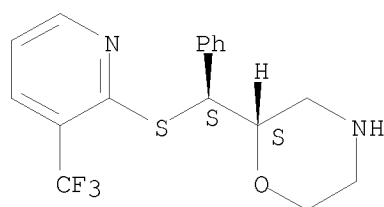
10567639

Absolute stereochemistry.



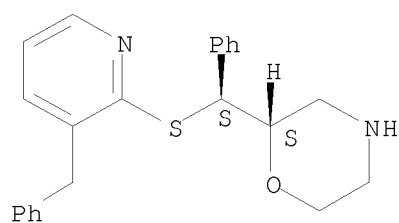
RN 847687-43-8 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-46-1 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

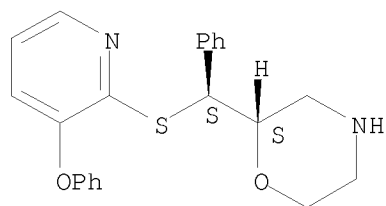
Absolute stereochemistry.



RN 847687-50-7 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA
INDEX NAME)

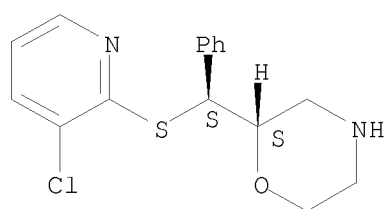
Absolute stereochemistry.

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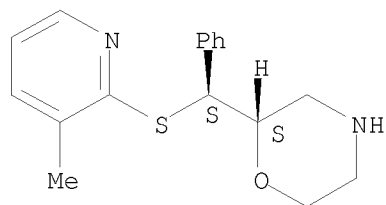
RN 847687-53-0 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA
INDEX NAME)

Absolute stereochemistry.



RN 847687-56-3 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA
INDEX NAME)

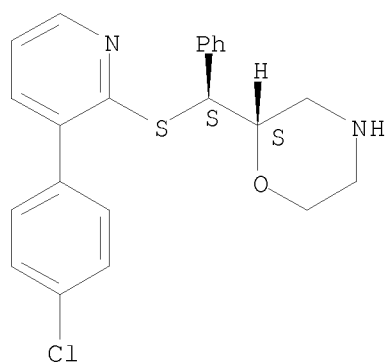
Absolute stereochemistry.



RN 847687-59-6 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

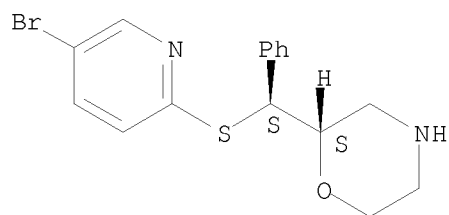
Absolute stereochemistry.

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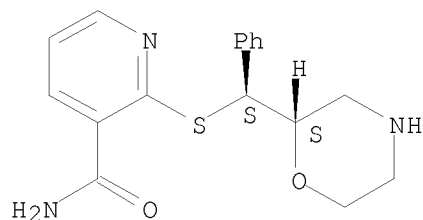
RN 847687-63-2 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA
INDEX NAME)

Absolute stereochemistry.



RN 847687-66-5 HCAPLUS
CN 3-Pyridinecarboxamide, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]- (CA
INDEX NAME)

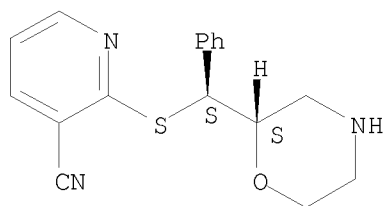
Absolute stereochemistry.



RN 847687-69-8 HCAPLUS
CN 3-Pyridinecarbonitrile, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]- (CA
INDEX NAME)

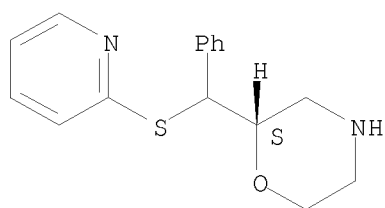
Absolute stereochemistry.

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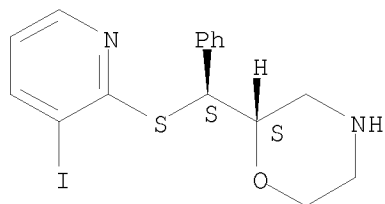
RN 847687-75-6 HCAPLUS
CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



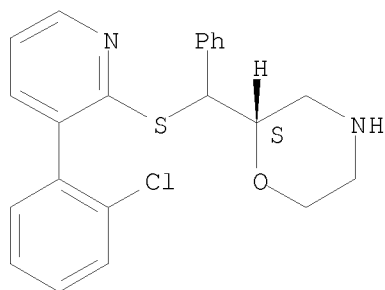
RN 847687-76-7 HCAPLUS
CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 848137-69-9 HCAPLUS
CN Morpholine, 2-[[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



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IT 847687-28-9P 847687-34-7P 847687-36-9P
847687-47-2P 847687-51-8P 847687-54-1P
847687-57-4P 847687-60-9P 847687-64-3P
847687-67-6P 847687-70-1P 847687-72-3P
847687-77-8P 848137-70-2P

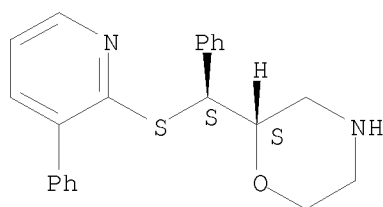
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(preparation of homochiral pyridinylmorpholines as selective norepinephrine
reuptake inhibitors)

RN 847687-28-9 HCAPLUS

CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)- (CA
INDEX NAME)

Absolute stereochemistry.



RN 847687-34-7 HCAPLUS

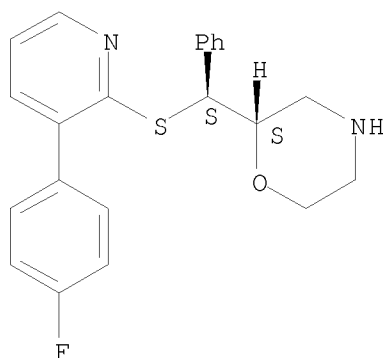
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-33-6

CMF C22 H21 F N2 O S

Absolute stereochemistry.



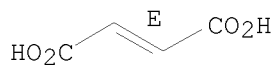
CM 2

CRN 110-17-8

CMF C4 H4 O4

10567639

Double bond geometry as shown.



RN 847687-36-9 HCAPLUS

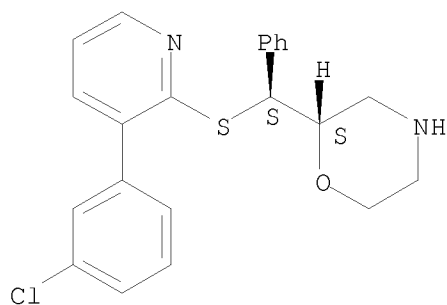
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-35-8

CMF C22 H21 Cl N2 O S

Absolute stereochemistry.

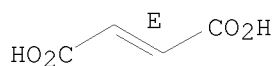


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-47-2 HCAPLUS

CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

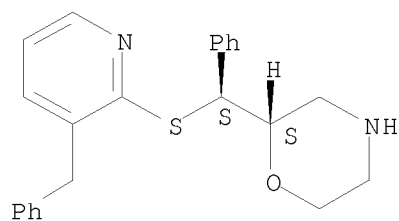
CM 1

CRN 847687-46-1

CMF C23 H24 N2 O S

Absolute stereochemistry.

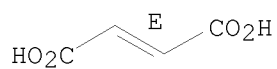
10567639



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

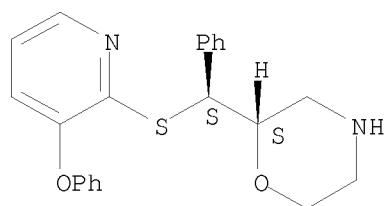


RN 847687-51-8 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-50-7
CMF C22 H22 N2 O2 S

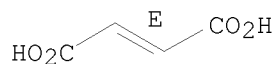
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-54-1 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)-,

10567639

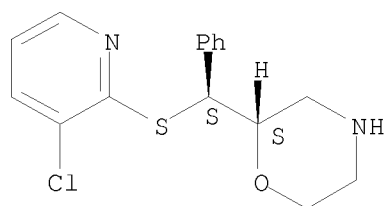
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-53-0

CMF C16 H17 Cl N2 O S

Absolute stereochemistry.

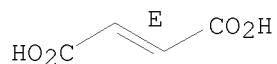


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-57-4 HCAPLUS

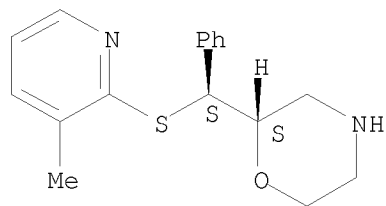
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-56-3

CMF C17 H20 N2 O S

Absolute stereochemistry.



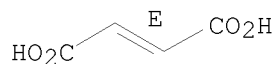
CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

10567639

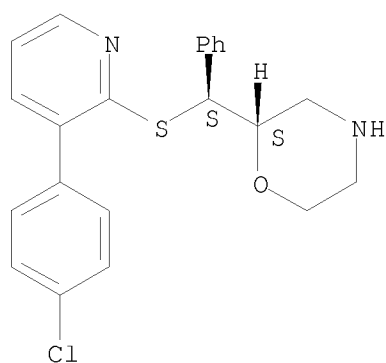


RN 847687-60-9 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-59-6
CMF C22 H21 Cl N2 O S

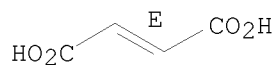
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



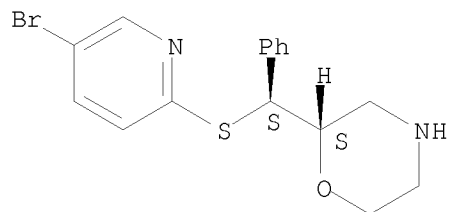
RN 847687-64-3 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-63-2
CMF C16 H17 Br N2 O S

Absolute stereochemistry.

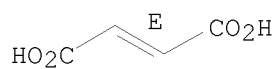
10567639



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

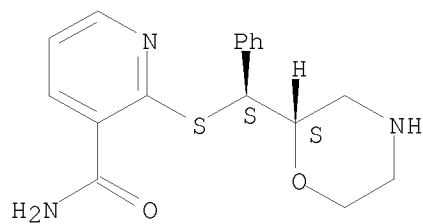


RN 847687-67-6 HCAPLUS
CN 3-Pyridinecarboxamide, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 847687-66-5
CMF C17 H19 N3 O2 S

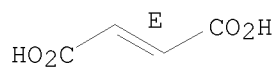
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-70-1 HCAPLUS

10567639

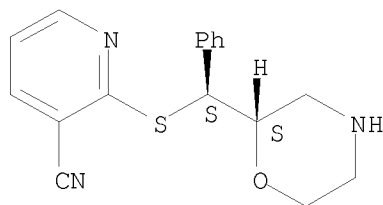
CN 3-Pyridinecarbonitrile, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 847687-69-8

CMF C17 H17 N3 O S

Absolute stereochemistry.

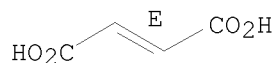


CM 2

CRN 110-17-8

CMF C4 H4 O4

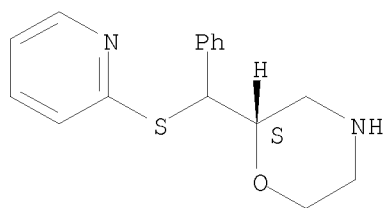
Double bond geometry as shown.



RN 847687-72-3 HCAPLUS

CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, hydrochloride, (2S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



● x HCl

RN 847687-77-8 HCAPLUS

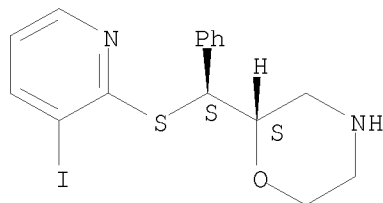
CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

10567639

CRN 847687-76-7
CMF C16 H17 I N2 O S

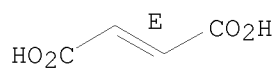
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

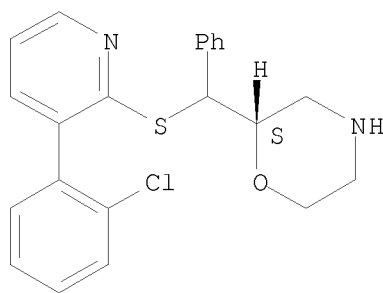


RN 848137-70-2 HCAPLUS
CN Morpholine, 2-[[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 848137-69-9
CMF C22 H21 Cl N2 O S

Absolute stereochemistry.

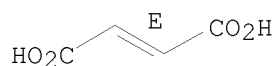


CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

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IT 847687-30-3P 847687-32-5P 847687-38-1P
847687-44-9P 847687-45-0P 847687-49-4P
847687-52-9P 847687-55-2P 847687-58-5P
847687-62-1P 847687-65-4P 847687-68-7P
847687-71-2P 847687-74-5P 848137-71-3P

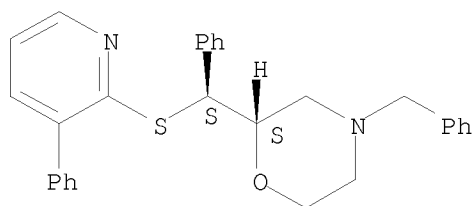
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of homochiral pyridinylmorpholines as selective norepinephrine reuptake inhibitors)

RN 847687-30-3 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)- (CA INDEX NAME)

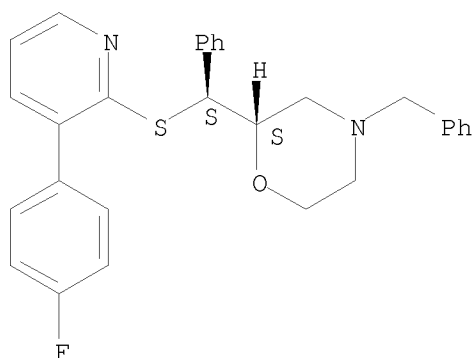
Absolute stereochemistry.



RN 847687-32-5 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

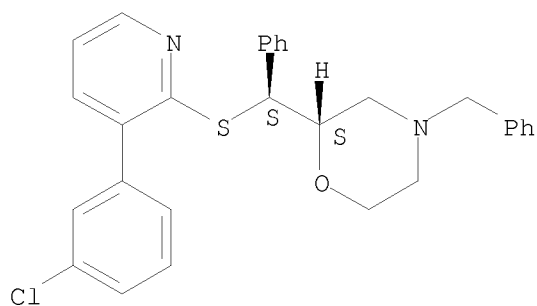


RN 847687-38-1 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

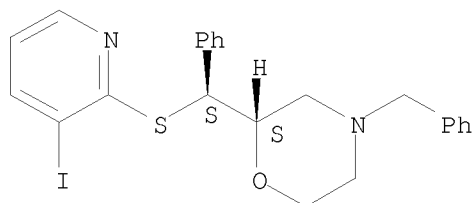
Absolute stereochemistry.

10567639



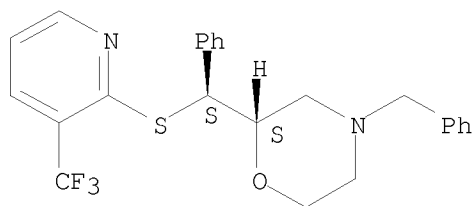
RN 847687-44-9 HCAPLUS
CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-45-0 HCAPLUS
CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

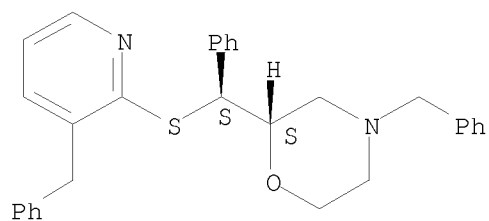
Absolute stereochemistry.



RN 847687-49-4 HCAPLUS
CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

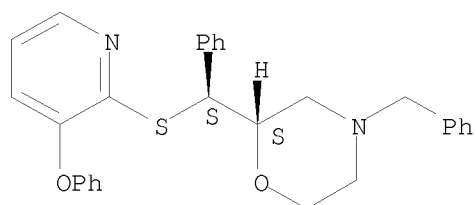
Absolute stereochemistry.

10567639



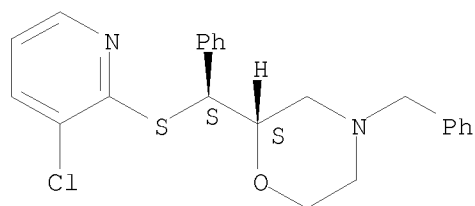
RN 847687-52-9 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxymethyl-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



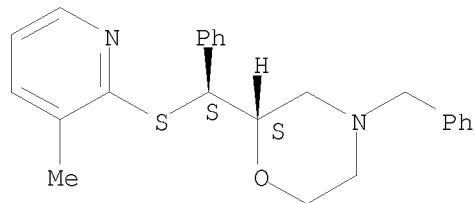
RN 847687-55-2 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-58-5 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

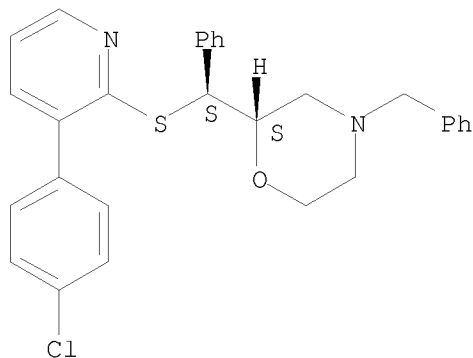


RN 847687-62-1 HCAPLUS

10567639

CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

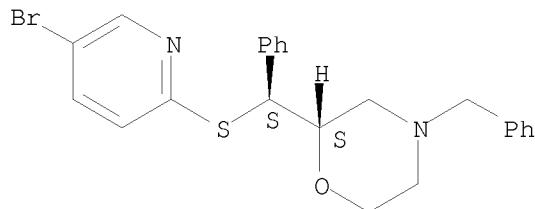
Absolute stereochemistry.



RN 847687-65-4 HCAPLUS

CN Morpholine, 2-[(S)-[[5-bromo-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

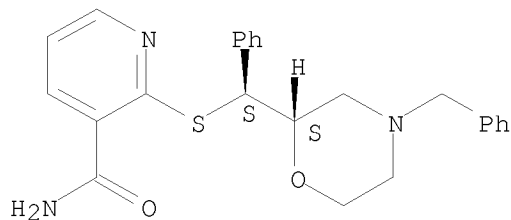
Absolute stereochemistry.



RN 847687-68-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

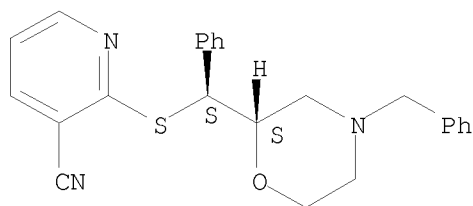


RN 847687-71-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

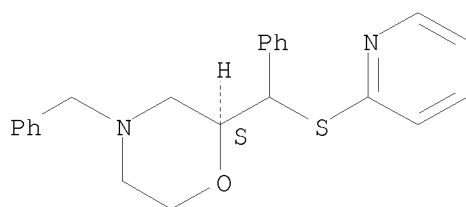
Absolute stereochemistry.

10567639



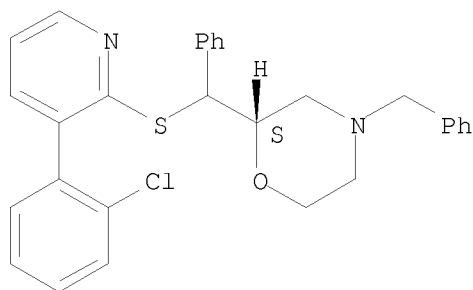
RN 847687-74-5 HCAPLUS
CN Morpholine, 4-(phenylmethyl)-2-[phenyl(2-pyridinylthio)methyl]-, (2S)-
(CA INDEX NAME)

Absolute stereochemistry.



RN 848137-71-3 HCAPLUS
CN Morpholine, 2-[[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(
phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



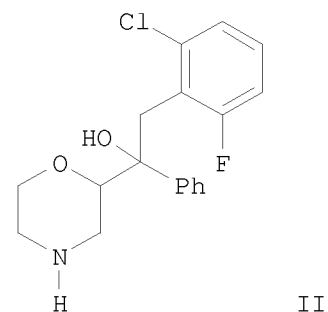
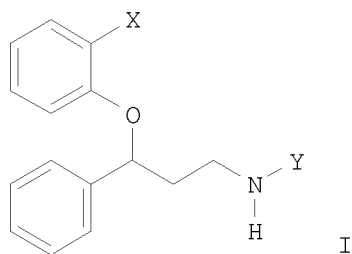
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:216719 HCAPLUS
DOCUMENT NUMBER: 142:291416
TITLE: Treatment of stuttering and other communication
disorders with norepinephrine reuptake inhibitors
INVENTOR(S): Kelsey, Douglas Kenneth
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 299 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

10567639

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005021095	A2	20050310	WO 2004-US25591	20040825
WO 2005021095	A3	20050609		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2532349	A1	20050310	CA 2004-2532349	20040825
EP 1660185	A2	20060531	EP 2004-780429	20040825
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
US 2007032554	A1	20070208	US 2006-568269	20060214
PRIORITY APPLN. INFO.:			US 2003-498018P	P 20030827
			WO 2004-US25591	W 20040825
OTHER SOURCE(S):		MARPAT 142:291416		
GI				



AB Provided are methods and medicaments for treating stuttering or another communication disorder, comprising administering to a patient in need of such treatment an effective amount of a selective norepinephrine reuptake inhibitor. The invention discloses the use of atomoxetine, racemic reboxetine, (S,S)-reboxetine, and compds. of formula I [wherein X = alkylthio and Y = alkyl; as described in U.S. patent Number 5,281,624], as well as their pharmaceutically acceptable salts, as the norepinephrine reuptake inhibitors described for treatment purposes. The invention further discloses the preparation of addnl. heterocyclic derivs. (as well as their pharmaceutically acceptable salts) that possess ability to serve as norepinephrine reuptake inhibitors. For instance, morpholine derivative II•HCl was prepared via alkylation of (4-benzyl-morpholin-2-yl)(phenyl)methanone with 2-chloro-6-fluorobenzylmagnesium chloride and subsequent N-debenzylation. The preferred invention compds. exhibited K_i values of less than 500 nM at the norepinephrine transporter (scintillation proximity assay).

IT 847687-29-0P 847687-33-6P 847687-34-7P
 847687-36-9P 847687-39-2P 847687-40-5P
 847687-43-8P 847687-47-2P 847687-50-7P
 847687-51-8P 847687-53-0P 847687-54-1P
 847687-57-4P 847687-59-6P 847687-60-9P
 847687-63-2P 847687-64-3P 847687-66-5P
 847687-67-6P 847687-69-8P 847687-70-1P
 847687-72-3P 847687-75-6P 847687-76-7P
 847687-77-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heterocyclic compds. useful as norepinephrine reuptake inhibitors)

RN 847687-29-0 HCAPLUS

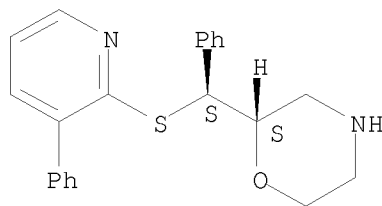
CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)-, (2E)-2-butenedioate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-28-9

CMF C22 H22 N2 O S

Absolute stereochemistry.



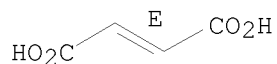
CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

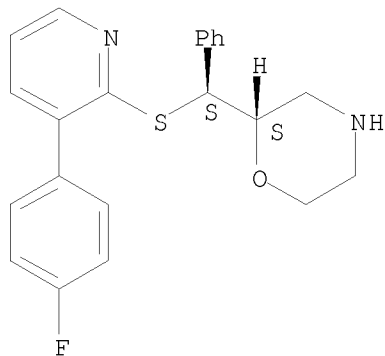
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RN 847687-33-6 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-34-7 HCAPLUS

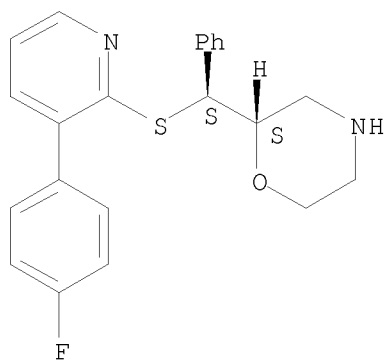
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-33-6

CMF C22 H21 F N2 O S

Absolute stereochemistry.



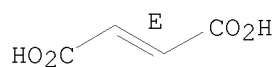
CM 2

CRN 110-17-8

CMF C4 H4 O4

10567639

Double bond geometry as shown.

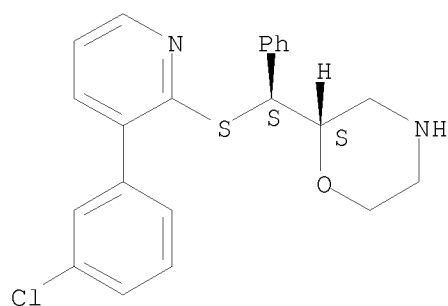


RN 847687-36-9 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-35-8
CMF C22 H21 Cl N2 O S

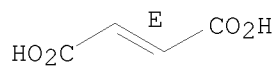
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

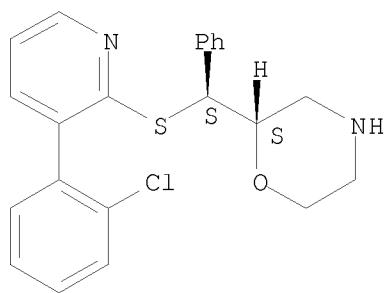
Double bond geometry as shown.



RN 847687-39-2 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

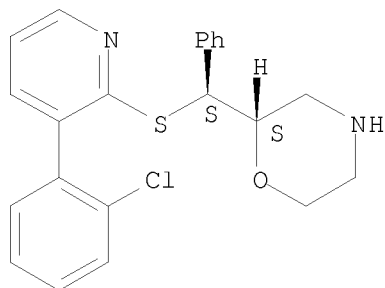


RN 847687-40-5 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-39-2
CMF C22 H21 Cl N2 O S

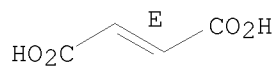
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

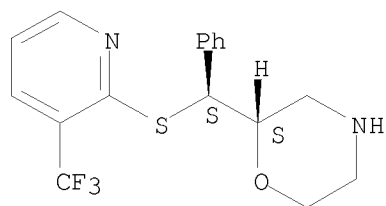
Double bond geometry as shown.



RN 847687-43-8 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

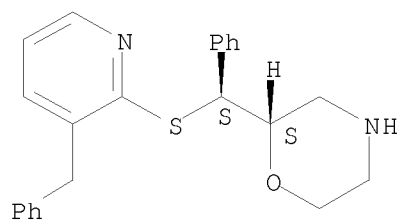


RN 847687-47-2 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-46-1
CMF C23 H24 N2 O S

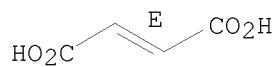
Absolute stereochemistry.



CM 2

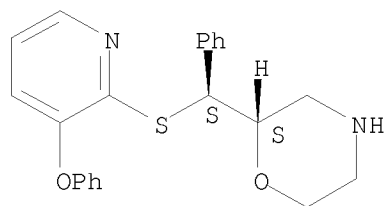
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-50-7 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



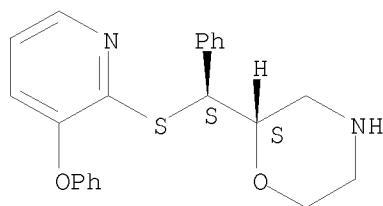
10567639

RN 847687-51-8 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-50-7
CMF C22 H22 N2 O2 S

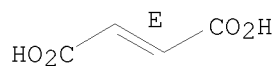
Absolute stereochemistry.



CM 2

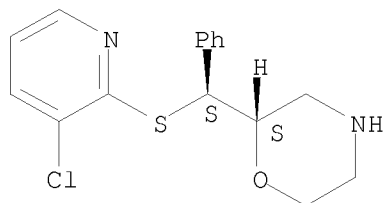
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-53-0 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA
INDEX NAME)

Absolute stereochemistry.



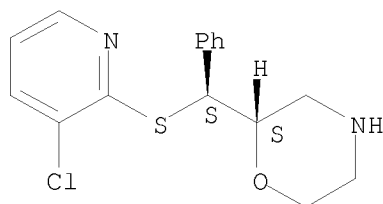
RN 847687-54-1 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-53-0
CMF C16 H17 Cl N2 O S

10567639

Absolute stereochemistry.

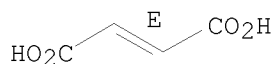


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-57-4 HCAPLUS

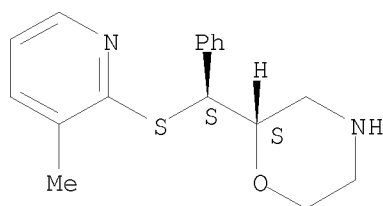
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-56-3

CMF C17 H20 N2 O S

Absolute stereochemistry.

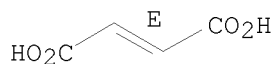


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



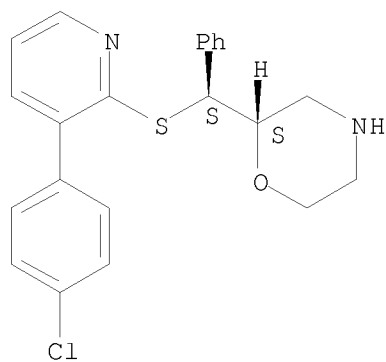
RN 847687-59-6 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,

10567639

(2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-60-9 HCAPLUS

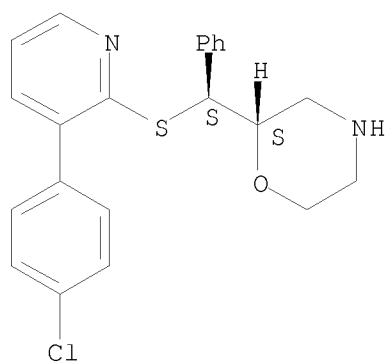
CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-59-6

CMF C22 H21 Cl N2 O S

Absolute stereochemistry.

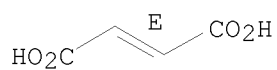


CM 2

CRN 110-17-8

CMF C4 H4 O4

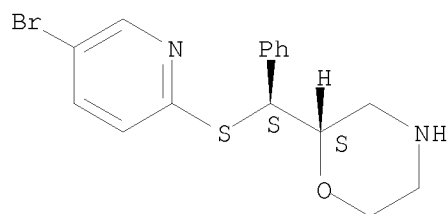
Double bond geometry as shown.



10567639

RN 847687-63-2 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

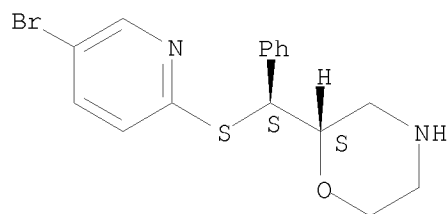


RN 847687-64-3 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-63-2
CMF C16 H17 Br N2 O S

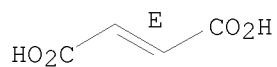
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

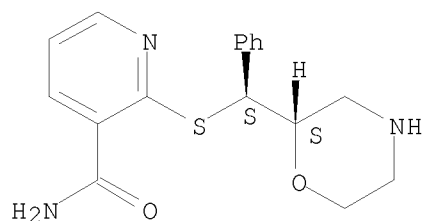
Double bond geometry as shown.



RN 847687-66-5 HCAPLUS
CN 3-Pyridinecarboxamide, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

10567639

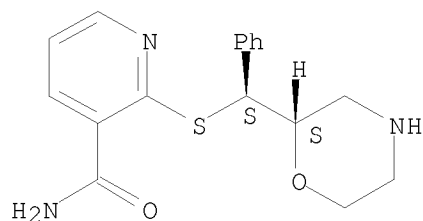


RN 847687-67-6 HCAPLUS
CN 3-Pyridinecarboxamide, 2-[[1S]-2-phenyl-2-morpholinylmethyl]thio-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 847687-66-5
CMF C17 H19 N3 O2 S

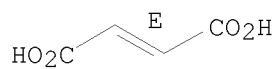
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

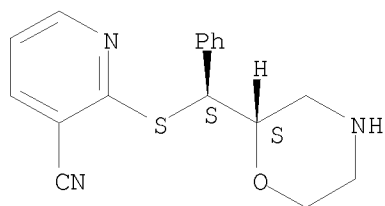
Double bond geometry as shown.



RN 847687-69-8 HCAPLUS
CN 3-Pyridinecarbonitrile, 2-[[1S]-2-phenyl-2-morpholinylmethyl]thio- (CA
INDEX NAME)

Absolute stereochemistry.

10567639

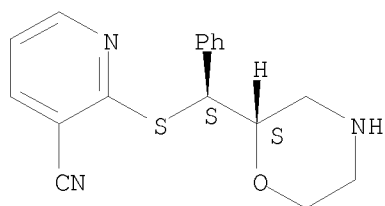


RN 847687-70-1 HCAPLUS
CN 3-Pyridinecarbonitrile, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 847687-69-8
CMF C17 H17 N3 O S

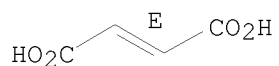
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

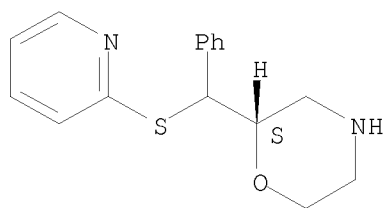
Double bond geometry as shown.



RN 847687-72-3 HCAPLUS
CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, hydrochloride, (2S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

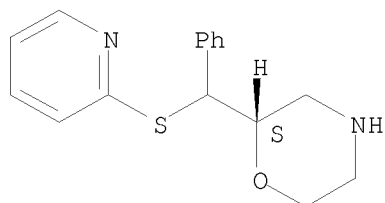
10567639



● x HCl

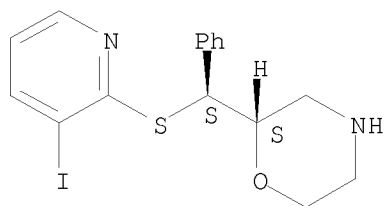
RN 847687-75-6 HCAPLUS
CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-76-7 HCAPLUS
CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



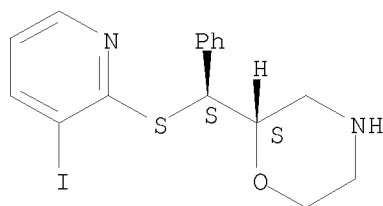
RN 847687-77-8 HCAPLUS
CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-76-7
CMF C16 H17 I N2 O S

Absolute stereochemistry.

10567639

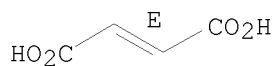


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



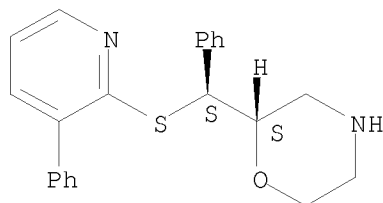
IT 847687-28-9P 847687-30-3P 847687-32-5P
847687-35-8P 847687-38-1P 847687-42-7P
847687-44-9P 847687-45-0P 847687-46-1P
847687-49-4P 847687-52-9P 847687-55-2P
847687-56-3P 847687-58-5P 847687-62-1P
847687-65-4P 847687-68-7P 847687-71-2P
847687-74-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of heterocyclic compds. useful as norepinephrine reuptake
inhibitors)

RN 847687-28-9 HCAPLUS

CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)- (CA
INDEX NAME)

Absolute stereochemistry.

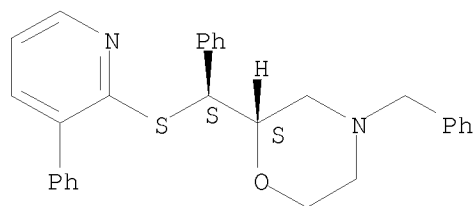


RN 847687-30-3 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[(3-phenyl-2-
pyridinyl)thio]methyl]-, (2S)- (CA INDEX NAME)

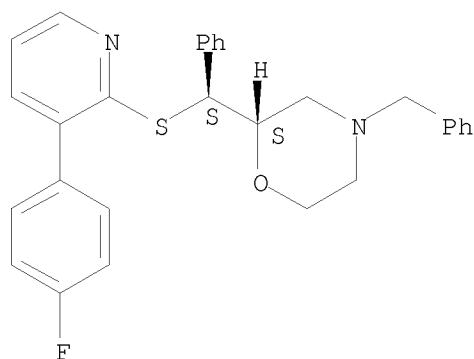
Absolute stereochemistry.

10567639



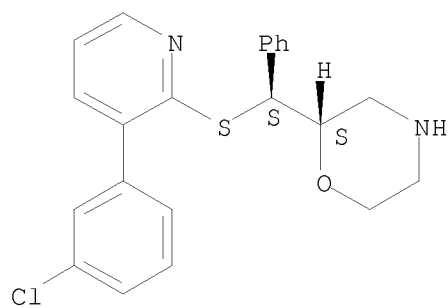
RN 847687-32-5 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-35-8 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

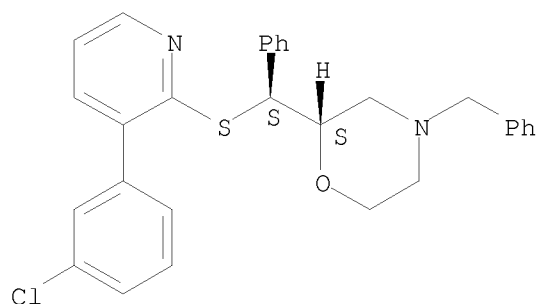
Absolute stereochemistry.



RN 847687-38-1 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

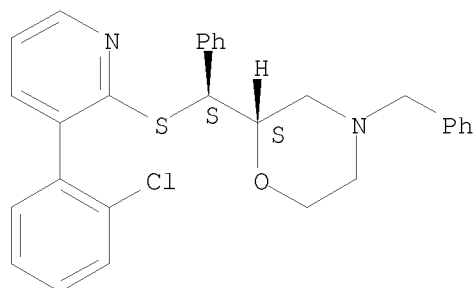
10567639



RN 847687-42-7 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

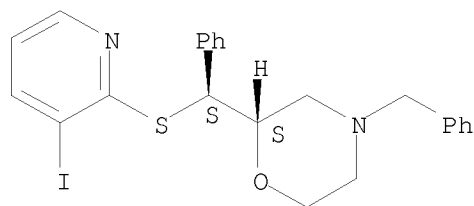
Absolute stereochemistry.



RN 847687-44-9 HCAPLUS

CN Morpholine, 2-[(S)-[[3-iodo-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

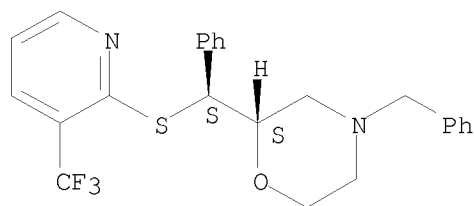


RN 847687-45-0 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

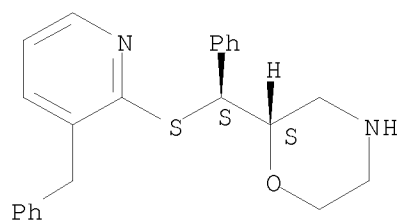
Absolute stereochemistry.

10567639



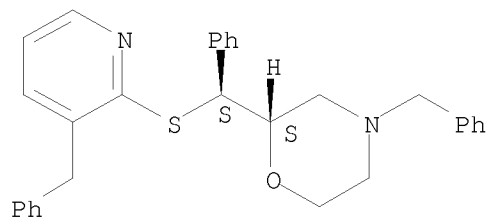
RN 847687-46-1 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.



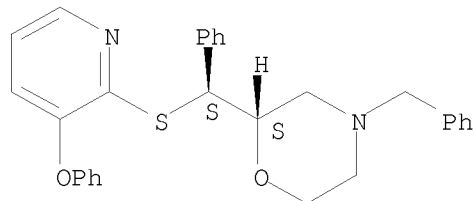
RN 847687-49-4 HCAPLUS
CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-52-9 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

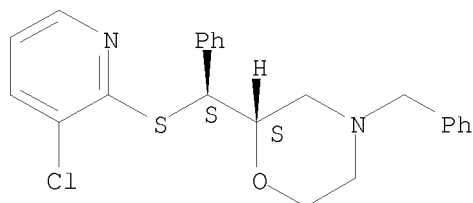
Absolute stereochemistry.



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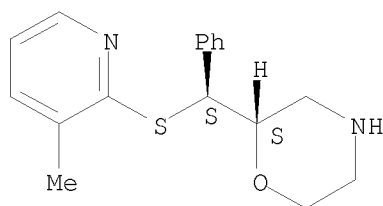
RN 847687-55-2 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



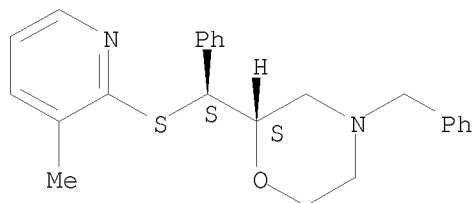
RN 847687-56-3 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-58-5 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

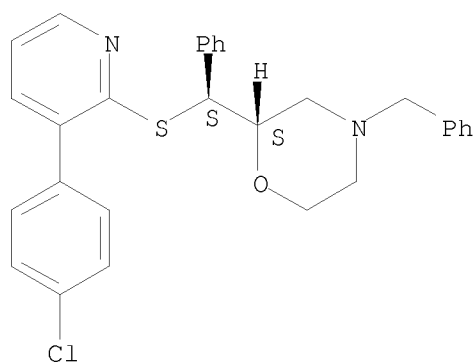
Absolute stereochemistry.



RN 847687-62-1 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

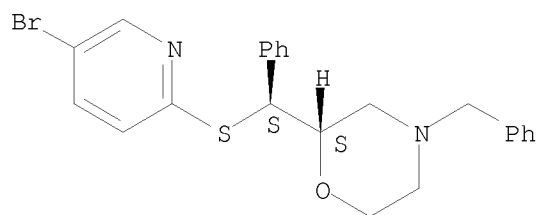
10567639



RN 847687-65-4 HCAPLUS

CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

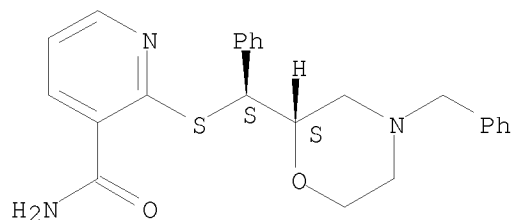
Absolute stereochemistry.



RN 847687-68-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

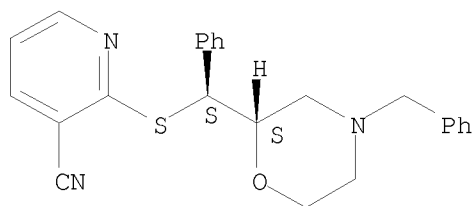


RN 847687-71-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

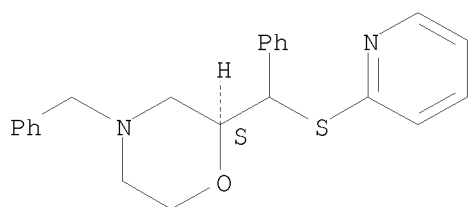
Absolute stereochemistry.

10567639



RN 847687-74-5 HCAPLUS
CN Morpholine, 4-(phenylmethyl)-2-[phenyl(2-pyridinylthio)methyl]-, (2S)-
(CA INDEX NAME)

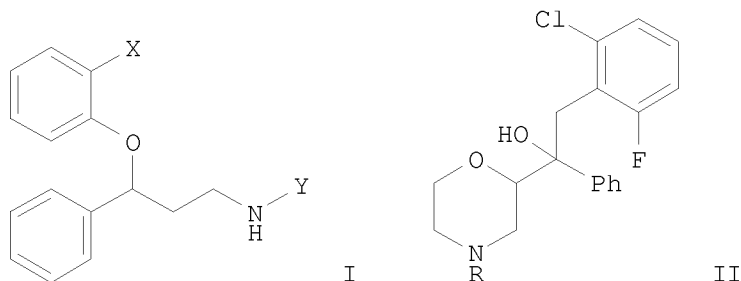
Absolute stereochemistry.



L4 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:216660 HCAPLUS
DOCUMENT NUMBER: 142:291415
TITLE: Treatment of pervasive development disorders employing
norepinephrine reuptake inhibitors
INVENTOR(S): Allen, Albert John; Kelsey, Douglas Kenneth
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 300 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005020976	A2	20050310	WO 2004-US25593	20040825
WO 2005020976	A3	20050616		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2536161	A1	20050310	CA 2004-2536161	20040825
EP 1660065	A2	20060531	EP 2004-780431	20040825

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
 US 2006241188 A1 20061026 US 2006-568466 20060214
 PRIORITY APPLN. INFO.: US 2003-498146P P 20030827
 WO 2004-US25593 W 20040825
 OTHER SOURCE(S): CASREACT 142:291415; MARPAT 142:291415
 GI



AB Provided are methods and medicaments for treating a pervasive development disorder, comprising administering to a patient in need of such treatment an effective amount of a selective norepinephrine reuptake inhibitor. The invention discloses the use of atomoxetine, racemic reboxetine, (S,S)-reboxetine, and compds. of formula I [wherein X = alkylthio and Y = alkyl; as described in U.S. patent Number 5,281,624], as well as their pharmaceutically acceptable salts, as the norepinephrine reuptake inhibitors described for treatment purposes. The invention further discloses the preparation of addnl. heterocyclic derivs. (as well as their pharmaceutically acceptable salts) that possess ability to serve as norepinephrine reuptake inhibitors. For instance, morpholine derivative II•HCl (R = H) was prepared via alkylation of (4-benzyl-morpholin-2-yl)(phenyl)methanone by 2-chloro-6-fluorobenzylmagnesium chloride and subsequent N-debenzylation of the obtained alc. I (R = Bn). The preferred invention compds. exhibited Ki values of less than 500 nM at the norepinephrine transporter (scintillation proximity assay).

IT 847687-29-0P 847687-33-6P 847687-34-7P
 847687-36-9P 847687-39-2P 847687-40-5P
 847687-43-8P 847687-47-2P 847687-50-7P
 847687-51-8P 847687-53-0P 847687-54-1P
 847687-57-4P 847687-59-6P 847687-60-9P
 847687-63-2P 847687-64-3P 847687-66-5P
 847687-67-6P 847687-69-8P 847687-70-1P
 847687-72-3P 847687-75-6P 847687-76-7P
 847687-77-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heterocyclic compds. useful as norepinephrine reuptake inhibitors)

RN 847687-29-0 HCAPLUS

CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)-, (2E)-2-butenedioate (2:1) (9CI) (CA INDEX NAME)

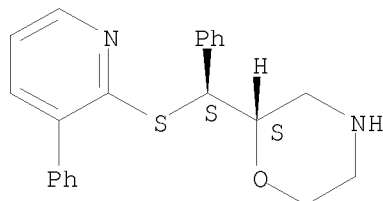
10567639

CM 1

CRN 847687-28-9

CMF C22 H22 N2 O S

Absolute stereochemistry.

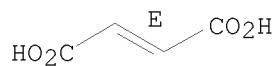


CM 2

CRN 110-17-8

CMF C4 H4 O4

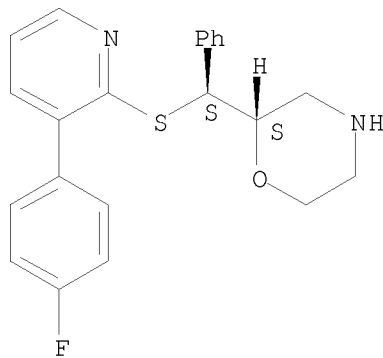
Double bond geometry as shown.



RN 847687-33-6 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-34-7 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

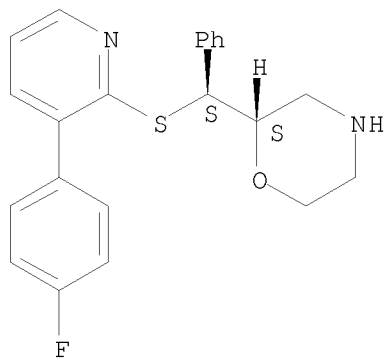
CM 1

CRN 847687-33-6

10567639

CMF C22 H21 F N2 O S

Absolute stereochemistry.

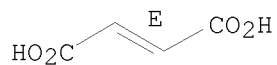


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-36-9 HCAPLUS

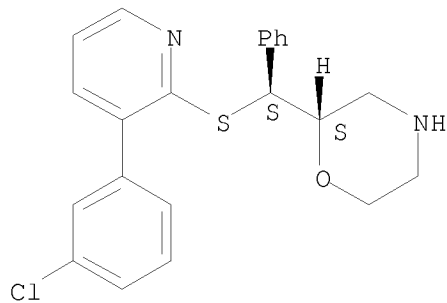
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-35-8

CMF C22 H21 Cl N2 O S

Absolute stereochemistry.

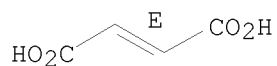


CM 2

10567639

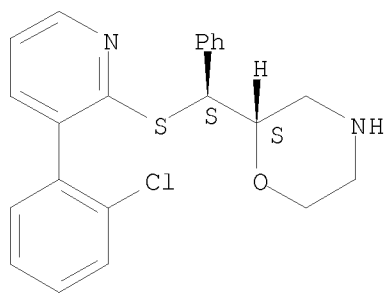
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-39-2 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

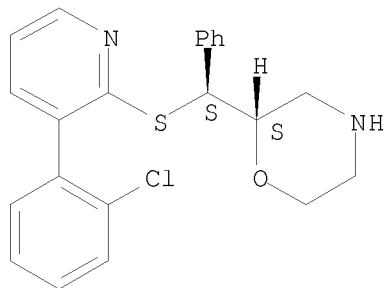


RN 847687-40-5 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-39-2
CMF C22 H21 Cl N2 O S

Absolute stereochemistry.

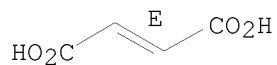


CM 2

CRN 110-17-8
CMF C4 H4 O4

10567639

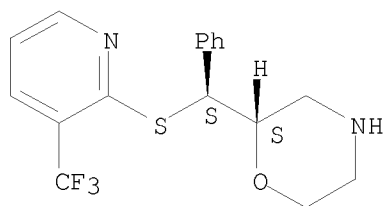
Double bond geometry as shown.



RN 847687-43-8 HCAPLUS

CN Morpholine, 2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-47-2 HCAPLUS

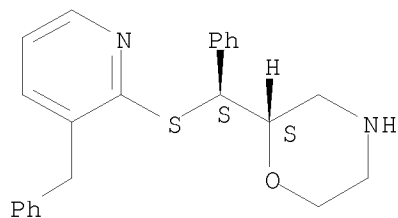
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-46-1

CMF C23 H24 N2 O S

Absolute stereochemistry.

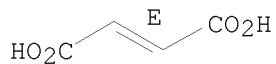


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

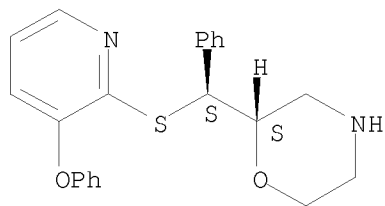


RN 847687-50-7 HCAPLUS

CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

10567639

Absolute stereochemistry.

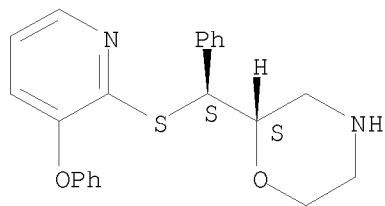


RN 847687-51-8 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-50-7
CMF C22 H22 N2 O2 S

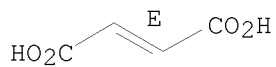
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

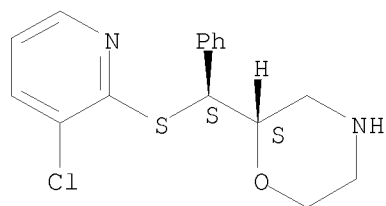
Double bond geometry as shown.



RN 847687-53-0 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

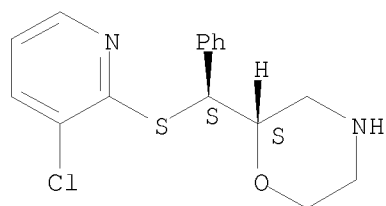


RN 847687-54-1 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-53-0
CMF C16 H17 Cl N2 O S

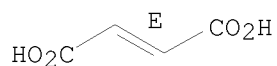
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



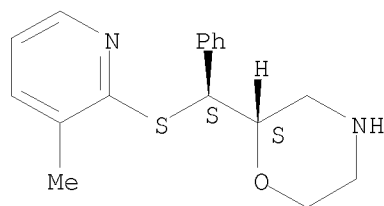
RN 847687-57-4 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-56-3
CMF C17 H20 N2 O S

Absolute stereochemistry.

10567639

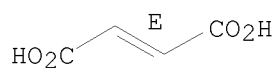


CM 2

CRN 110-17-8

CMF C4 H4 O4

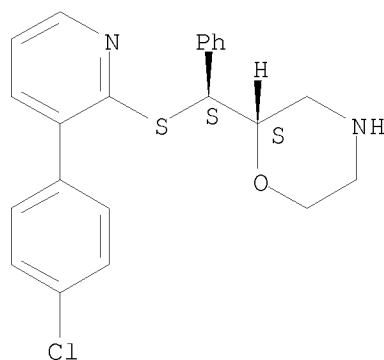
Double bond geometry as shown.



RN 847687-59-6 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-60-9 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

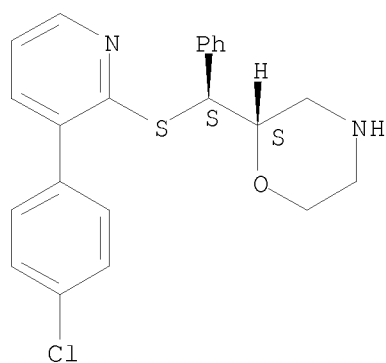
CM 1

CRN 847687-59-6

CMF C22 H21 Cl N2 O S

Absolute stereochemistry.

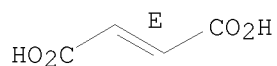
10567639



CM 2

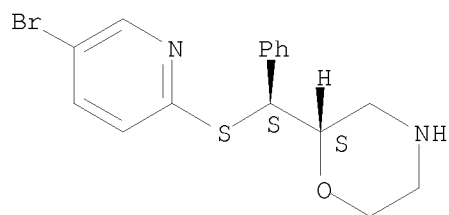
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-63-2 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



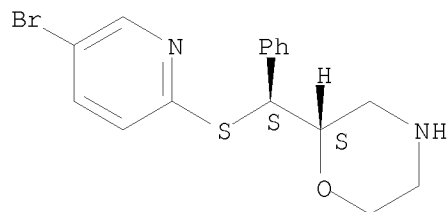
RN 847687-64-3 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-63-2
CMF C16 H17 Br N2 O S

Absolute stereochemistry.

10567639

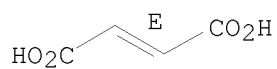


CM 2

CRN 110-17-8

CMF C4 H4 O4

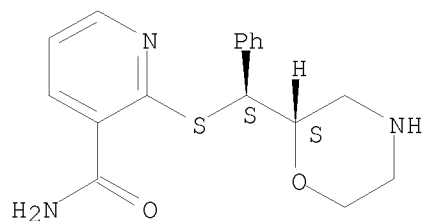
Double bond geometry as shown.



RN 847687-66-5 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[1-(S)-(2S)-2-morpholinylphenylmethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-67-6 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[1-(S)-(2S)-2-morpholinylphenylmethyl]thio]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

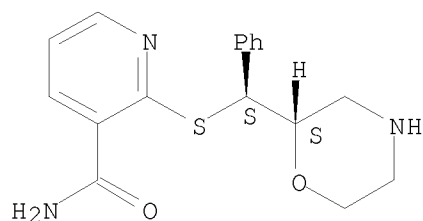
CM 1

CRN 847687-66-5

CMF C17 H19 N3 O2 S

Absolute stereochemistry.

10567639

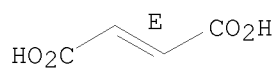


CM 2

CRN 110-17-8

CMF C4 H4 O4

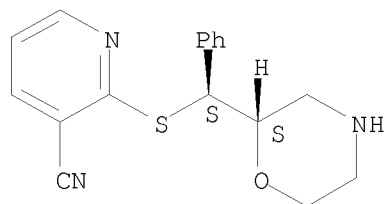
Double bond geometry as shown.



RN 847687-69-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-70-1 HCAPLUS

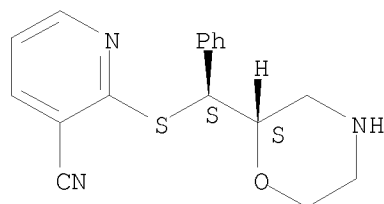
CN 3-Pyridinecarbonitrile, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]-, (2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 847687-69-8

CMF C17 H17 N3 O S

Absolute stereochemistry.



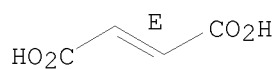
10567639

CM 2

CRN 110-17-8

CMF C4 H4 O4

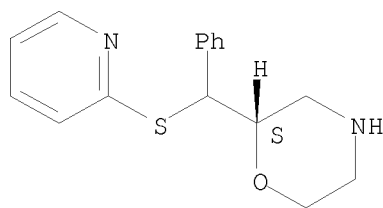
Double bond geometry as shown.



RN 847687-72-3 HCAPLUS

CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, hydrochloride, (2S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

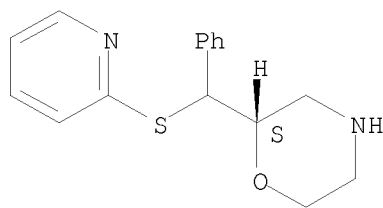


● x HCl

RN 847687-75-6 HCAPLUS

CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

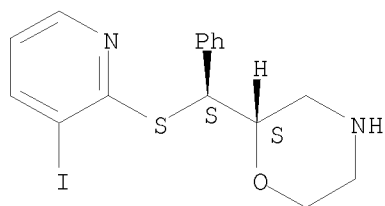


RN 847687-76-7 HCAPLUS

CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

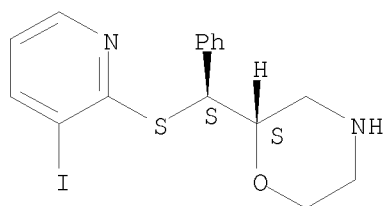


RN 847687-77-8 HCAPLUS
CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-76-7
CMF C16 H17 I N2 O S

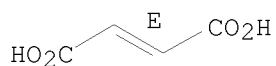
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

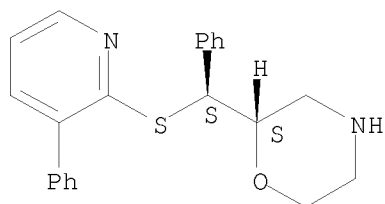
Double bond geometry as shown.



IT 847687-28-9P 847687-30-3P 847687-32-5P
847687-35-8P 847687-38-1P 847687-42-7P
847687-44-9P 847687-45-0P 847687-46-1P
847687-49-4P 847687-52-9P 847687-55-2P
847687-56-3P 847687-58-5P 847687-62-1P
847687-65-4P 847687-68-7P 847687-71-2P
847687-74-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of heterocyclic compds. useful as norepinephrine reuptake
inhibitors)
RN 847687-28-9 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)- (CA
INDEX NAME)

10567639

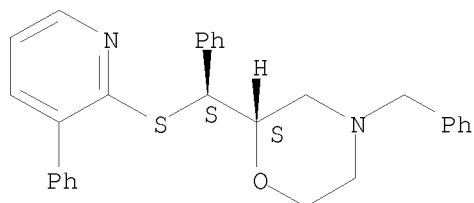
Absolute stereochemistry.



RN 847687-30-3 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)- (CA INDEX NAME)

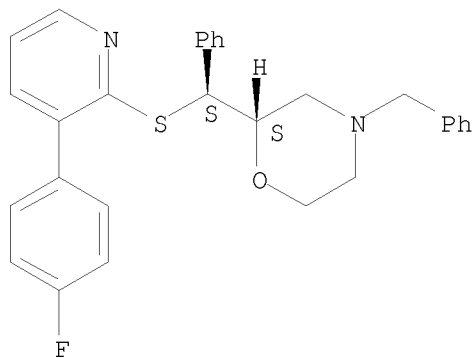
Absolute stereochemistry.



RN 847687-32-5 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

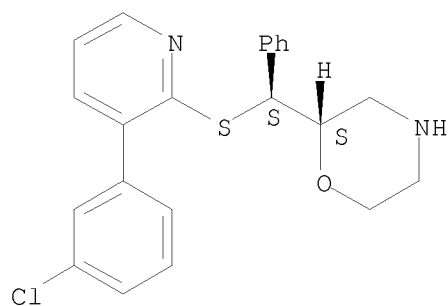


RN 847687-35-8 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

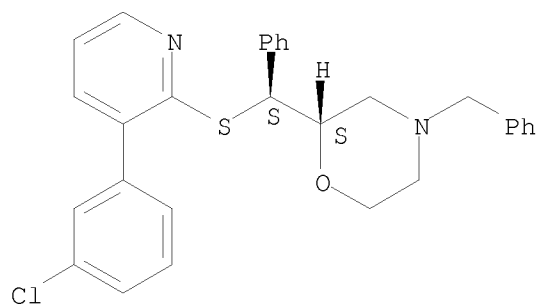
10567639



RN 847687-38-1 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

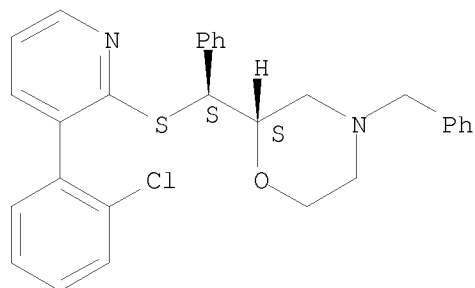
Absolute stereochemistry.



RN 847687-42-7 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

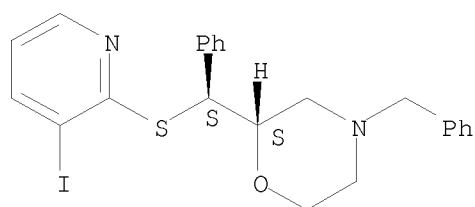


RN 847687-44-9 HCAPLUS

CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

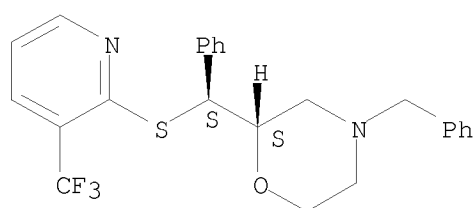
10567639



RN 847687-45-0 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

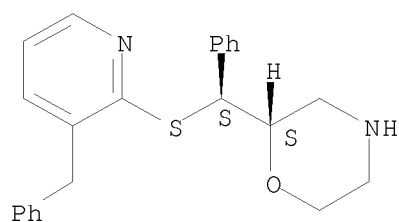
Absolute stereochemistry.



RN 847687-46-1 HCAPLUS

CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

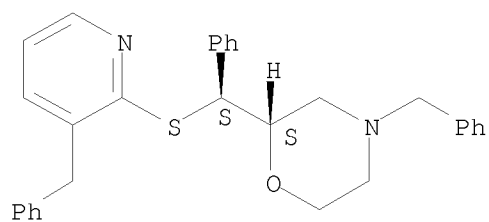
Absolute stereochemistry.



RN 847687-49-4 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

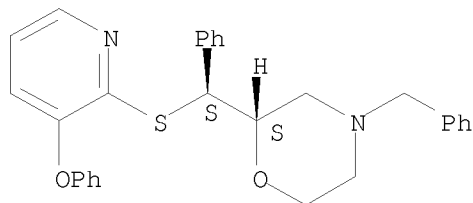


RN 847687-52-9 HCAPLUS

10567639

CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

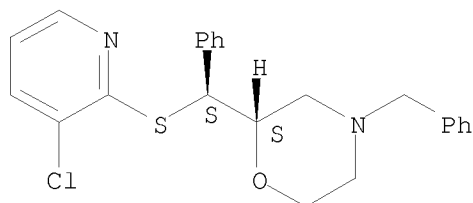
Absolute stereochemistry.



RN 847687-55-2 HCAPLUS

CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

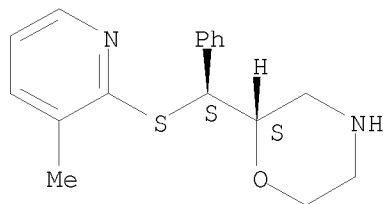
Absolute stereochemistry.



RN 847687-56-3 HCAPLUS

CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

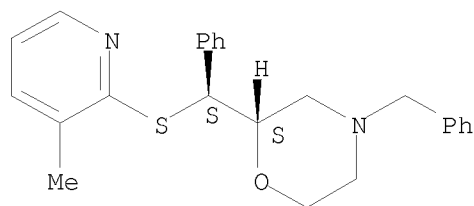


RN 847687-58-5 HCAPLUS

CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

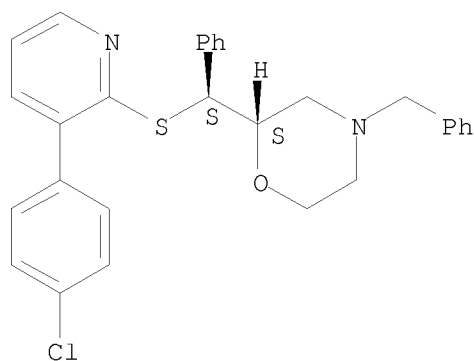
Absolute stereochemistry.

10567639



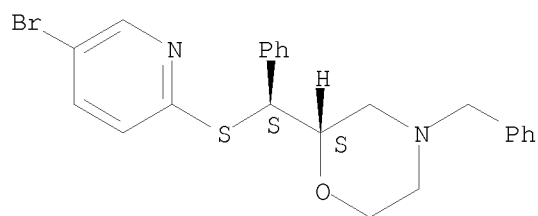
RN 847687-62-1 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-65-4 HCAPLUS
CN Morpholine, 2-[(S)-[[5-bromo-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

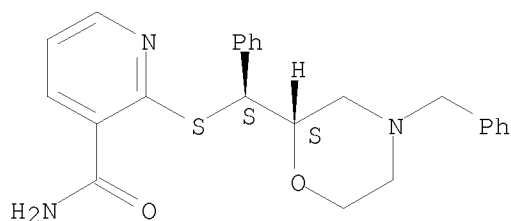
Absolute stereochemistry.



RN 847687-68-7 HCAPLUS
CN 3-Pyridinecarboxamide, 2-[[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

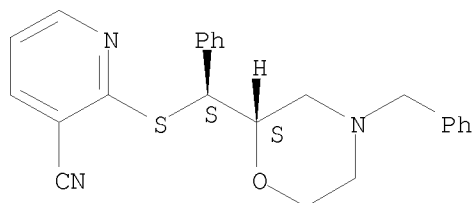
10567639



RN 847687-71-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[S]-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

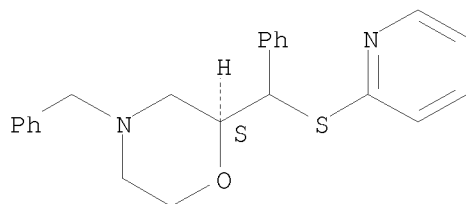
Absolute stereochemistry.



RN 847687-74-5 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[phenyl(2-pyridinylthio)methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:216659 HCAPLUS

DOCUMENT NUMBER: 142:291414

TITLE: Treatment of learning disabilities and motor skills disorder with norepinephrine reuptake inhibitors

INVENTOR(S): Sumner, Calvin Russell

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 304 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

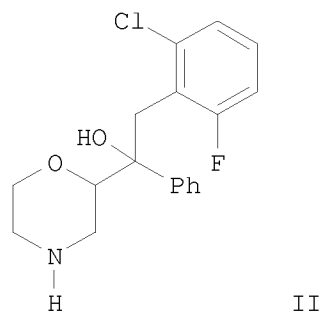
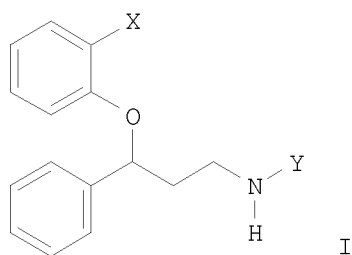
KIND

DATE

APPLICATION NO.

DATE

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WO 2005020975	A2	20050310	WO 2004-US25592	20040825
WO 2005020975	A3	20050602		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2530014	A1	20050310	CA 2004-2530014	20040825
EP 1660064	A2	20060531	EP 2004-780430	20040825
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
US 2007105960	A1	20070510	US 2006-568244	20060214
PRIORITY APPLN. INFO.:			US 2003-498019P	P 20030827
			WO 2004-US25592	W 20040825
OTHER SOURCE(S):	MARPAT 142:291414			
GI				



AB Provided are methods and medicaments for treating a learning disability or a motor skills disorder, comprising administering to a patient in need of such treatment an effective amount of a selective norepinephrine reuptake inhibitor. The invention discloses the use of atomoxetine, racemic

reboxetine, (S,S)-reboxetine, and compds. of formula I [wherein X = alkylthio and Y = alkyl; as described in U.S. patent Number 5,281,624], as well as their pharmaceutically acceptable salts, as the norepinephrine reuptake inhibitors described for treatment purposes. The invention further discloses the preparation of addnl. heterocyclic derivs. (as well as their pharmaceutically acceptable salts) that possess ability to serve as norepinephrine reuptake inhibitors. For instance, morpholine derivative II•HCl was prepared via alkylation of (4-benzyl-morpholin-2-yl)(phenyl)methanone with 2-chloro-6-fluorobenzylmagnesium chloride and subsequent N-debenzylation. The preferred invention compds. exhibited Ki values of less than 500 nM at the norepinephrine transporter (scintillation proximity assay).

IT 847687-29-0P 847687-33-6P 847687-34-7P
 847687-36-9P 847687-39-2P 847687-40-5P
 847687-43-8P 847687-47-2P 847687-50-7P
 847687-51-8P 847687-53-0P 847687-54-1P
 847687-57-4P 847687-59-6P 847687-60-9P
 847687-63-2P 847687-64-3P 847687-66-5P
 847687-67-6P 847687-69-8P 847687-70-1P
 847687-72-3P 847687-75-6P 847687-76-7P
 847687-77-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heterocyclic compds. useful as norepinephrine reuptake inhibitors)

RN 847687-29-0 HCAPLUS

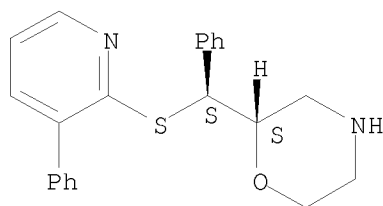
CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)-, (2E)-2-butenedioate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-28-9

CMF C22 H22 N2 O S

Absolute stereochemistry.

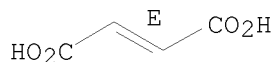


CM 2

CRN 110-17-8

CMF C4 H4 O4

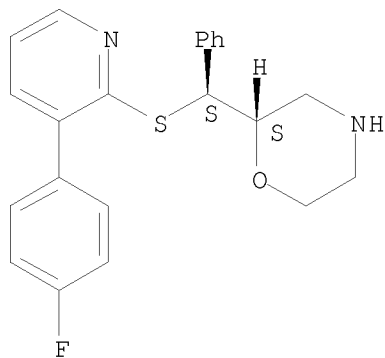
Double bond geometry as shown.



10567639

RN 847687-33-6 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

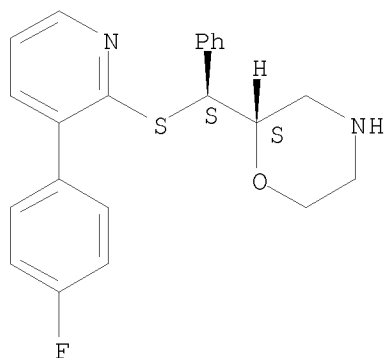


RN 847687-34-7 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-33-6
CMF C22 H21 F N2 O S

Absolute stereochemistry.

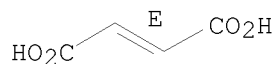


CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

10567639

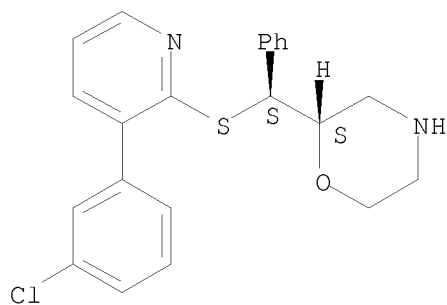


RN 847687-36-9 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-35-8
CMF C22 H21 Cl N2 O S

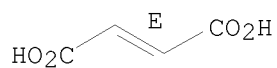
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

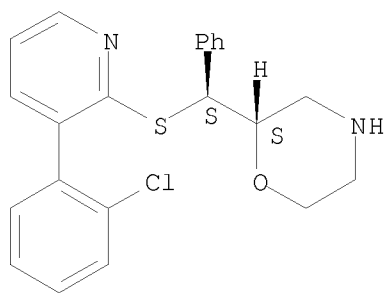
Double bond geometry as shown.



RN 847687-39-2 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

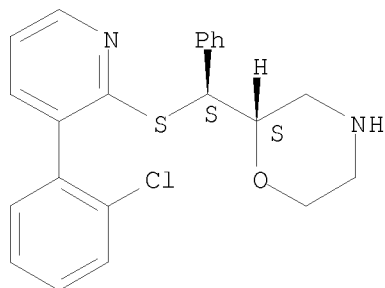


RN 847687-40-5 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-39-2
CMF C22 H21 Cl N2 O S

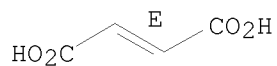
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

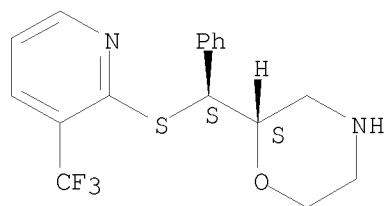
Double bond geometry as shown.



RN 847687-43-8 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.

10567639

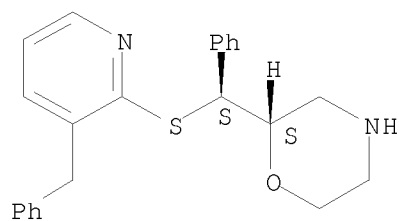


RN 847687-47-2 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-,
(2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-46-1
CMF C23 H24 N2 O S

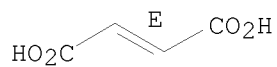
Absolute stereochemistry.



CM 2

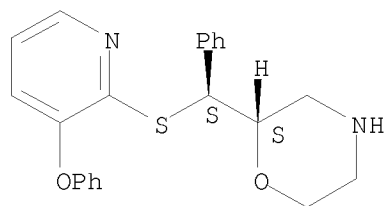
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-50-7 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA
INDEX NAME)

Absolute stereochemistry.



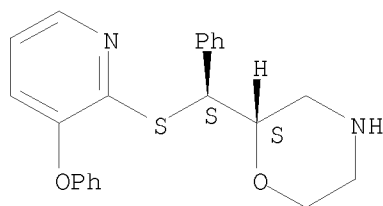
10567639

RN 847687-51-8 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-, (2S)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-50-7
CMF C22 H22 N2 O2 S

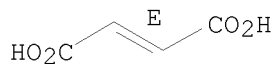
Absolute stereochemistry.



CM 2

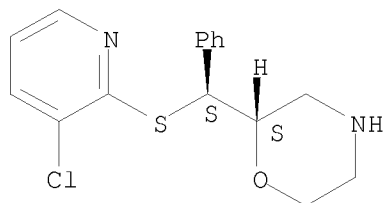
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-53-0 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA
INDEX NAME)

Absolute stereochemistry.



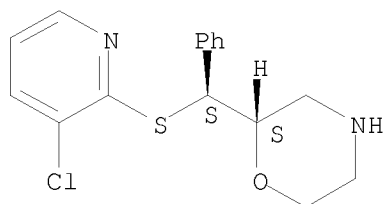
RN 847687-54-1 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-, (2S)-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-53-0
CMF C16 H17 Cl N2 O S

10567639

Absolute stereochemistry.

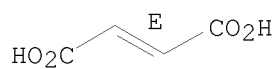


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



RN 847687-57-4 HCAPLUS

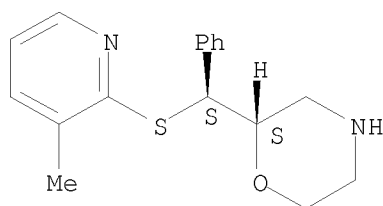
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-56-3

CMF C17 H20 N2 O S

Absolute stereochemistry.

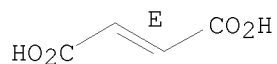


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



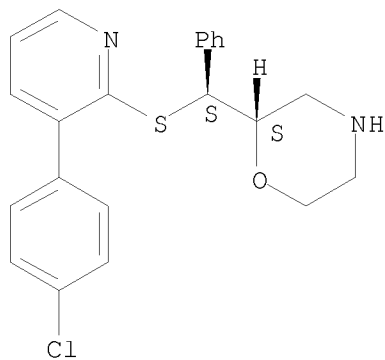
RN 847687-59-6 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-,

10567639

(2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-60-9 HCAPLUS

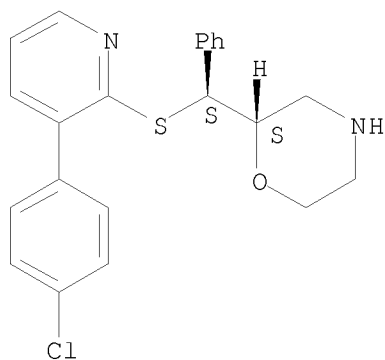
CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-59-6

CMF C22 H21 Cl N2 O S

Absolute stereochemistry.

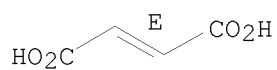


CM 2

CRN 110-17-8

CMF C4 H4 O4

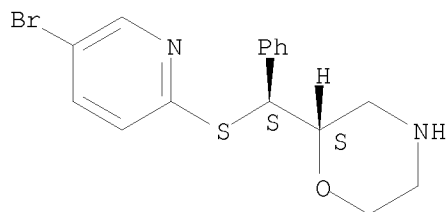
Double bond geometry as shown.



10567639

RN 847687-63-2 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

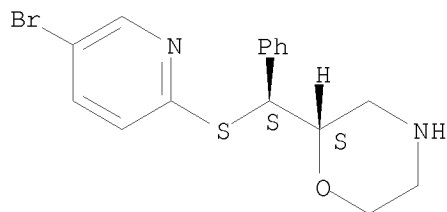


RN 847687-64-3 HCAPLUS
CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-63-2
CMF C16 H17 Br N2 O S

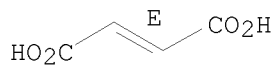
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

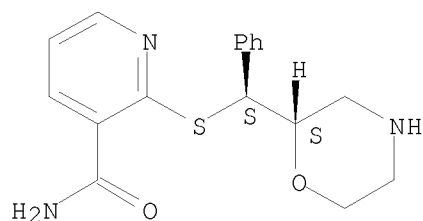
Double bond geometry as shown.



RN 847687-66-5 HCAPLUS
CN 3-Pyridinecarboxamide, 2-[[(S)-(2S)-2-morpholinylphenylmethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

10567639

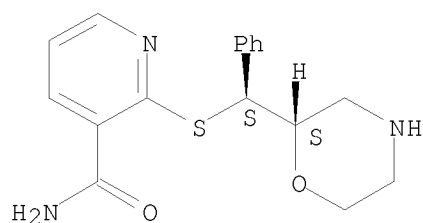


RN 847687-67-6 HCAPLUS
CN 3-Pyridinecarboxamide, 2-[[1S]-2-phenyl-2-morpholinylmethyl]thio-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 847687-66-5
CMF C17 H19 N3 O2 S

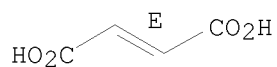
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

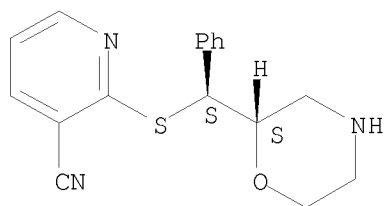
Double bond geometry as shown.



RN 847687-69-8 HCAPLUS
CN 3-Pyridinecarbonitrile, 2-[[1S]-2-phenyl-2-morpholinylmethyl]thio- (CA
INDEX NAME)

Absolute stereochemistry.

10567639

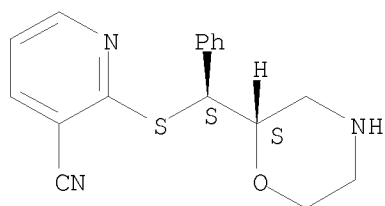


RN 847687-70-1 HCAPLUS
CN 3-Pyridinecarbonitrile, 2-[[[(S)-(2S)-2-morpholinylphenylmethyl]thio]-,
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 847687-69-8
CMF C17 H17 N3 O S

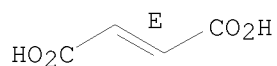
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

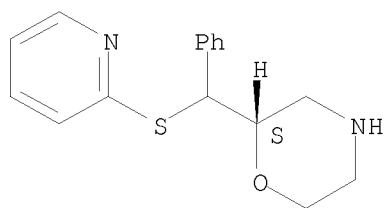
Double bond geometry as shown.



RN 847687-72-3 HCAPLUS
CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, hydrochloride, (2S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

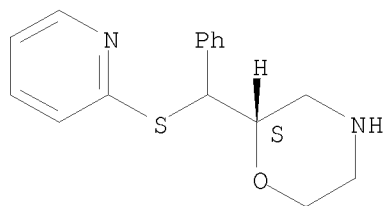
10567639



● x HCl

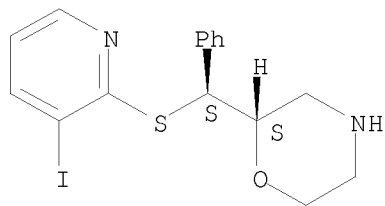
RN 847687-75-6 HCAPLUS
CN Morpholine, 2-[phenyl(2-pyridinylthio)methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-76-7 HCAPLUS
CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



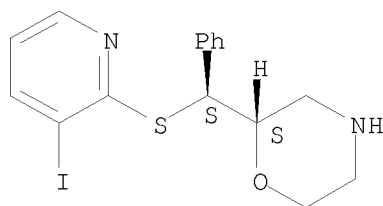
RN 847687-77-8 HCAPLUS
CN Morpholine, 2-[(S)-[(3-iodo-2-pyridinyl)thio]phenylmethyl]-, (2S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 847687-76-7
CMF C16 H17 I N2 O S

Absolute stereochemistry.

10567639

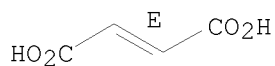


CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



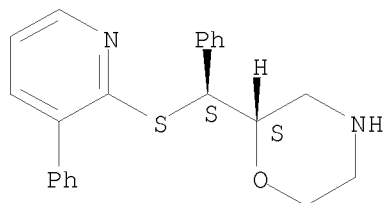
IT 847687-28-9P 847687-30-3P 847687-32-5P
847687-35-8P 847687-38-1P 847687-42-7P
847687-44-9P 847687-45-0P 847687-46-1P
847687-49-4P 847687-52-9P 847687-55-2P
847687-56-3P 847687-58-5P 847687-62-1P
847687-65-4P 847687-68-7P 847687-71-2P
847687-74-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of heterocyclic compds. useful as norepinephrine reuptake
inhibitors)

RN 847687-28-9 HCAPLUS

CN Morpholine, 2-[(S)-phenyl[(3-phenyl-2-pyridinyl)thio]methyl]-, (2S)- (CA
INDEX NAME)

Absolute stereochemistry.

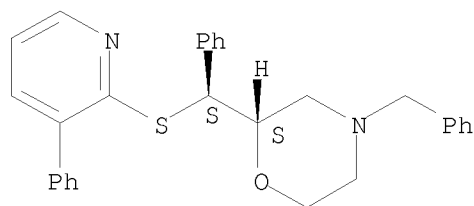


RN 847687-30-3 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[(3-phenyl-2-
pyridinyl)thio]methyl]-, (2S)- (CA INDEX NAME)

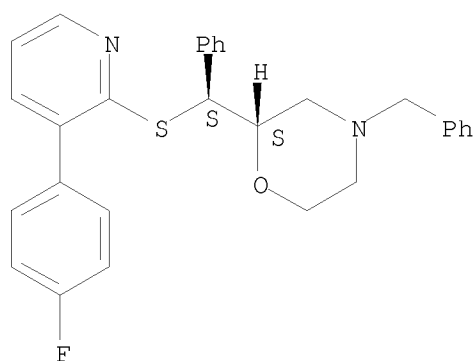
Absolute stereochemistry.

10567639



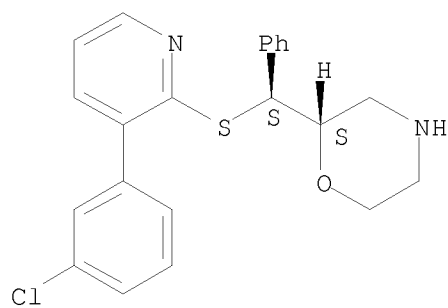
RN 847687-32-5 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-fluorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-35-8 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

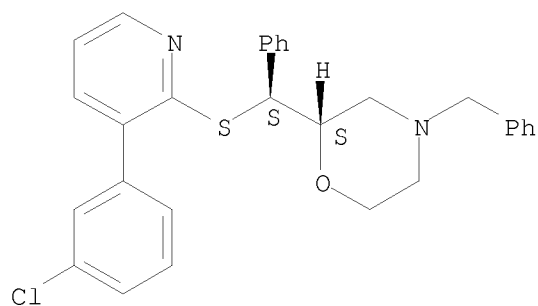
Absolute stereochemistry.



RN 847687-38-1 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(3-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

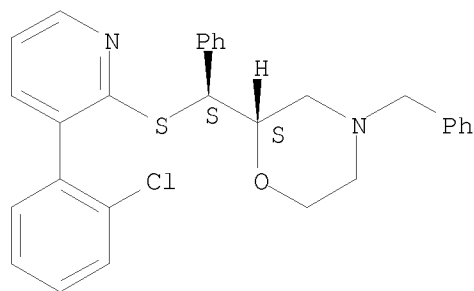
10567639



RN 847687-42-7 HCAPLUS

CN Morpholine, 2-[(S)-[[3-(2-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

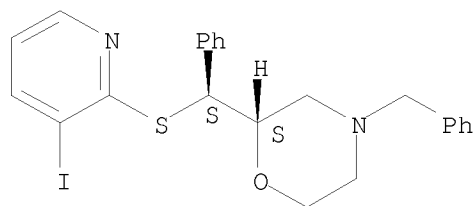
Absolute stereochemistry.



RN 847687-44-9 HCAPLUS

CN Morpholine, 2-[(S)-[[3-iodo-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

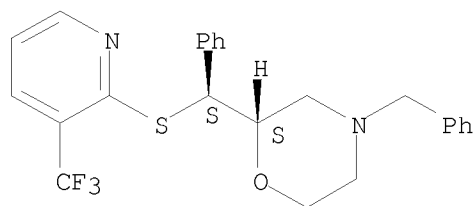


RN 847687-45-0 HCAPLUS

CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(trifluoromethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

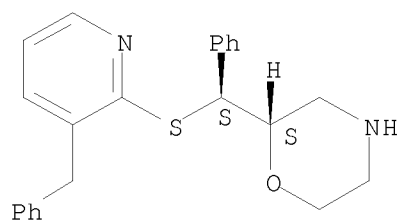
Absolute stereochemistry.

10567639



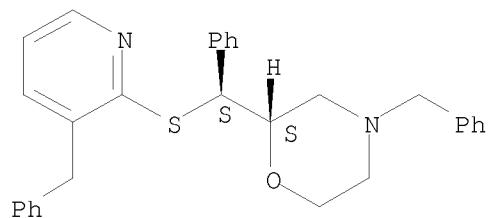
RN 847687-46-1 HCAPLUS
CN Morpholine, 2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-,
(2S)- (CA INDEX NAME)

Absolute stereochemistry.



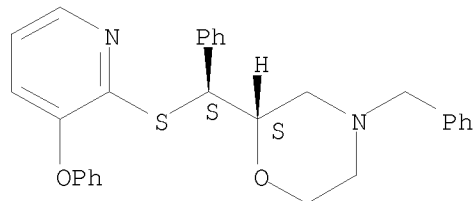
RN 847687-49-4 HCAPLUS
CN Morpholine, 4-(phenylmethyl)-2-[(S)-phenyl[[3-(phenylmethyl)-2-pyridinyl]thio]methyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-52-9 HCAPLUS
CN Morpholine, 2-[(S)-[(3-phenoxy-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

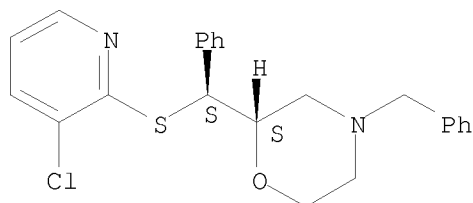
Absolute stereochemistry.



10567639

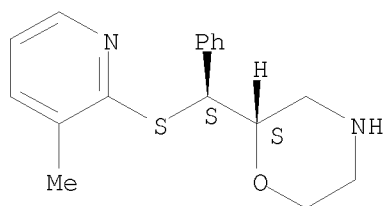
RN 847687-55-2 HCAPLUS
CN Morpholine, 2-[(S)-[(3-chloro-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



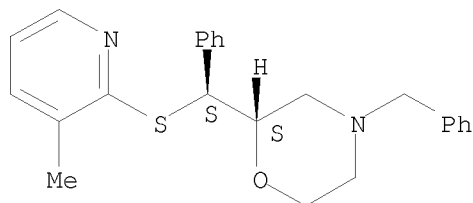
RN 847687-56-3 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 847687-58-5 HCAPLUS
CN Morpholine, 2-[(S)-[(3-methyl-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

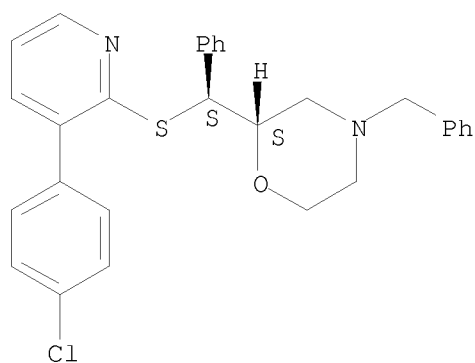
Absolute stereochemistry.



RN 847687-62-1 HCAPLUS
CN Morpholine, 2-[(S)-[[3-(4-chlorophenyl)-2-pyridinyl]thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

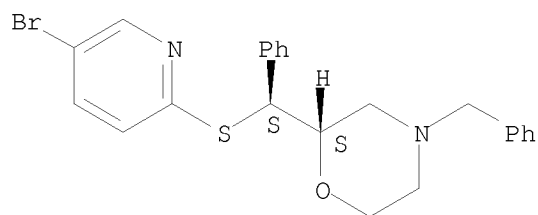
10567639



RN 847687-65-4 HCAPLUS

CN Morpholine, 2-[(S)-[(5-bromo-2-pyridinyl)thio]phenylmethyl]-4-(phenylmethyl)-, (2S)- (CA INDEX NAME)

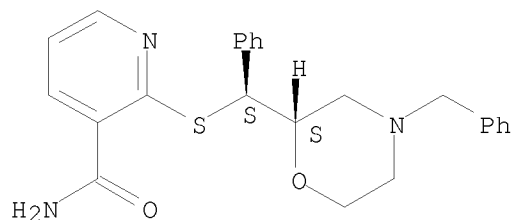
Absolute stereochemistry.



RN 847687-68-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

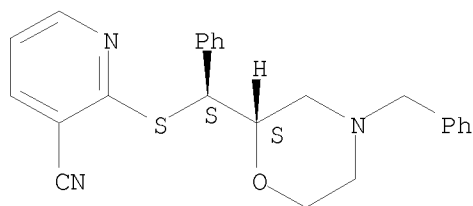


RN 847687-71-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[(S)-phenyl[(2S)-4-(phenylmethyl)-2-morpholinyl]methyl]thio]- (CA INDEX NAME)

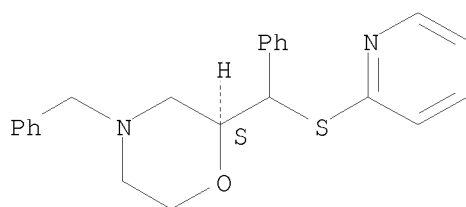
Absolute stereochemistry.

10567639



RN 847687-74-5 HCAPLUS
CN Morpholine, 4-(phenylmethyl)-2-[phenyl(2-pyridinylthio)methyl]-, (2S)-
(CA INDEX NAME)

Absolute stereochemistry.



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L9 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1176480 HCAPLUS
DOCUMENT NUMBER: 143:440426
TITLE: Substituted morpholine compounds for the treatment of
central nervous system disorders, their preparation
and pharmaceutical compositions
INVENTOR(S): Barta, Nancy S.; Glase, Shelly Ann; Gray, David L.;
Reichard, Gregory A.; Simons, Lloyd J.; Xu, Weijan
PATENT ASSIGNEE(S): Warner-Lambert Company LLC, USA
SOURCE: U.S. Pat. Appl. Publ., 85 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005245519	A1	20051103	US 2005-119210	20050429
AU 2005238296	A1	20051110	AU 2005-238296	20050419
CA 2564994	A1	20051110	CA 2005-2564994	20050419
WO 2005105763	A1	20051110	WO 2005-IB1158	20050419

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,

ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG
 EP 1745029 A1 20070124 EP 2005-733459 20050419
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA,
 HR, LV, MK, YU
 CN 1950348 A 20070418 CN 2005-80013776 20050419
 BR 2005010453 A 20071030 BR 2005-10453 20050419
 JP 2007535530 T 20071206 JP 2007-510153 20050419
 NL 1028924 A1 20051101 NL 2005-1028924 20050429
 NL 1028924 C2 20060427
 IN 2006DN05782 A 20070803 IN 2006-DN5782 20061005
 MX 2006PA12505 A 20061215 MX 2006-PA12505 20061027
 KR 2007006881 A 20070111 KR 2006-722767 20061030
 NO 2006005456 A 20070104 NO 2006-5456 20061127
 PRIORITY APPLN. INFO.: US 2004-567244P P 20040430
 WO 2005-IB1158 W 20050419
 OTHER SOURCE(S): MARPAT 143:440426
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to compds. of the formula I, which can be used in the treatment of central nervous system disorders. In compds. I, A is O or S; X is C1-10 alkyl, C2-8 alkenyl, aryl, heterocyclyl, C1-6 alkoxy, etc., with each group optionally substituted; and R1 - R5 are independently selected from H, OH, halo, C1-6 alkyl, aryl, C3-8 cycloalkyl, C2-6 alkenyl, C1-6 alkoxy, aryloxy, heterocyclyl, etc.; including pharmaceutically acceptable salts, enantiomers and diastereomers. The invention also relates to the preparation of I, pharmaceutical compns. comprising a compound I and a pharmaceutically acceptable carrier, as well as to the use of the compns. in the treatment of central nervous system disorders. Ring opening of (R,R)-phenylglycidol with 1-naphthol followed by silylation of the primary alc., mesylation of the secondary alc., and desilylation gave mesylate II, which underwent ring closure to the epoxide, ring opening with ammonium hydroxide and amidation with chloroacetyl chloride, resulting in the formation of amide III. Compound III was converted to the morpholine by intramol. cyclization and Red-Al reduction to give morpholine IV. Several compds., e.g., IV, express high inhibition of human norepinephrine transporter (hNET) and human serotonin transporter (hSERT).

L9 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:588645 HCAPLUS

DOCUMENT NUMBER: 143:115550

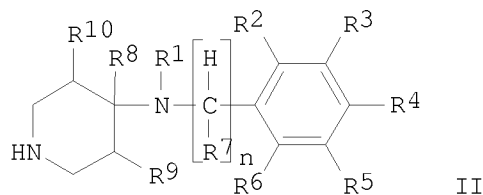
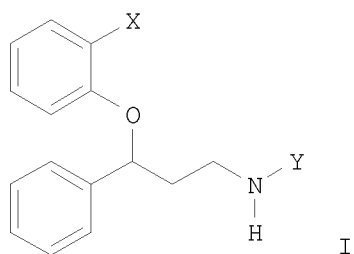
TITLE: Preparation of heterocyclic compounds as selective norepinephrine reuptake inhibitors for treating hot flashes, impulse control disorders and personality change due to a general medical condition

INVENTOR(S): Allen, Albert John; Hemrick-Luecke, Susan; Sumner,

Calvin Russell; Wallace, Owen Brendan
 PATENT ASSIGNEE(S): Eli Lilly and Company, USA
 SOURCE: PCT Int. Appl., 337 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005060949	A2	20050707	WO 2004-US38221	20041201
WO 2005060949	A3	20050909		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2548304	A1	20050707	CA 2004-2548304	20041201
EP 1729754	A2	20061213	EP 2004-811076	20041201
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1889940	A	20070103	CN 2004-80036841	20041201
JP 2007513945	T	20070531	JP 2006-543830	20041201
US 2007015786	A1	20070118	US 2006-581015	20060530
PRIORITY APPLN. INFO.:			US 2003-529428P	P 20031212
			WO 2004-US38221	W 20041201

OTHER SOURCE(S): MARPAT 143:115550
 GI



AB The invention relates to a method of preventing or treating hot flashes, vasomotor symptoms, impulse control disorders or personality change due to a general medical condition, comprising administering to a patient in need thereof a therapeutically effective amount of a selective norepinephrine reuptake inhibitor selected from atomoxetine, reboxetine, I [X = alkylthio; Y = alkyl], II [n = 1-3; R1 = alkyl, alkenyl, cycloalkyl, etc.; R2-R4 = H, alkyl, alkoxy, etc.; R5-R6 = H, alkyl, alkoxy, halo; R7-R8 = H, alkyl; R9-R10 = H, halo, OH, CN, alkyl, alkoxy], etc. Over 200 title

comps. such as I, II and other heterocyclic comps. disclosed, were prepared E.g., a 2-step synthesis of N-(2-methylpropyl)-N-[(2-fluorophenyl)methyl]piperidin-4-amine fumarate, starting from tert-Bu 4-(2-methylpropylamino)piperidine-1-carboxylate and 2-fluorobenzaldehyde, was given. The preferred exemplified title comps. exhibit a K_i value less than 1 μM , more preferably less than 500 nM at the norepinephrine transporter as determined using the scintillation proximity assay.

L9 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:523264 HCAPLUS

DOCUMENT NUMBER: 143:59831

TITLE: A preparation of aminopiperidine derivatives, useful for the treatment of cognitive failure

INVENTOR(S): Hatfield, Alan Kramer; Bymaster, Franklin Porter; McKinzie, David Lee; Tucker, Tina Marie; Keaffaber, Kirk Matthew; Sumner, Calvin Russell; Trzepacz, Paula Terese; Allen, Albert John; Kelsey, Douglas Kenneth; Michelson, David; Gehlert, Donald Richard; Yang, Charles Renkin

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 300 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

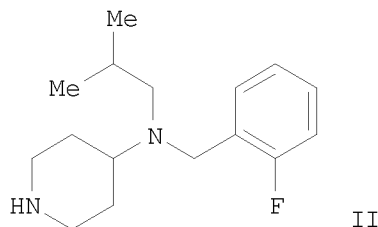
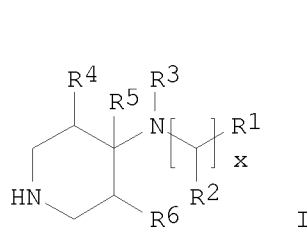
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053663	A2	20050616	WO 2004-US37195	20041124
WO 2005053663	A3	20050811		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2003-524450P P 20031124

US 2003-524781P P 20031125

OTHER SOURCE(S): MARPAT 143:59831

GI



AB The invention relates to a preparation of aminopiperidine derivs. of formula I [wherein: x is 1-3; R1 is (un)substituted phenyl; R2 and R5 are independently H or alkyl; R3 is (cyclo)alkyl, alkenyl, or cycloalkylalkyl, etc.; R4 is H, halogen, or OH, etc.; R6 is H, halogen, CN, or alkyl, etc.], useful for the treatment of cognitive failure. Selective norepinephrine reuptake inhibitors were used to treat cognitive failure. For instance, fumarate salt of aminopiperidine derivative II was prepared via imination of 2-fluorobenzaldehyde by tert-Bu 4-[(2-methylpropyl)amino]piperidine-1-carboxylate, reduction of the obtained imine, and subsequent fumaric acid salt formation. The preferred invention compds. exhibit Ki values less than 500 nM at the norepinephrine transporter.

L9 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:238982 HCAPLUS

DOCUMENT NUMBER: 142:316847

TITLE: Preparation of homochiral pyridinylmorpholines as selective norepinephrine reuptake inhibitors

INVENTOR(S): Clark, Barry Peter; Gallagher, Peter Thaddeus

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 76 pp.

CODEN: PIXXD2

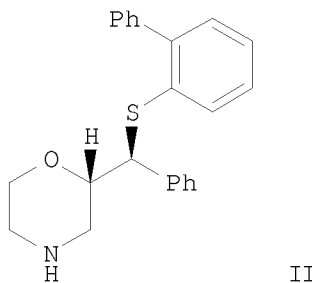
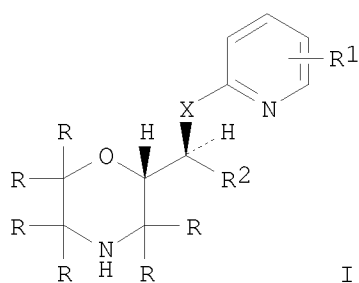
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005023802	A1	20050317	WO 2004-US22313	20040809
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1658287	A1	20060524	EP 2004-778025	20040809
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
US 2006258654	A1	20061116	US 2006-567639	20060208
PRIORITY APPLN. INFO.:			GB 2003-19693	A 20030822
			US 2003-514748P	P 20031027
			WO 2004-US22313	W 20040809
OTHER SOURCE(S):		CASREACT 142:316847; MARPAT 142:316847		
GI				



AB Title compds. I [X = S, O; R = H, alkyl; R1 = H, alkyl, alkoxy, halo, etc.; R2 = alkyl, Ph, etc.] are prepared For instance, (S)-(4-benzylmorpholin-2-yl)phenylmethanone (large scale preparation given) is selectively reduced to the (S,S) alc. and converted to the corresponding thiol in 3 addnl. steps. The thiol is reacted with 2-fluoro-3-phenylpyridine and debenzylated to give II. All example compds. exhibit a $K_i < 500$ nM at the norepinephrine transporter and all examples of I inhibit selectively the norepinephrine transporter relative to serotonin and dopamine by at least a factor of 5. I are useful for the treatment of, e.g., an addictive disorder, withdrawal syndrome, etc.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:216719 HCAPLUS

DOCUMENT NUMBER: 142:291416

TITLE: Treatment of stuttering and other communication disorders with norepinephrine reuptake inhibitors

INVENTOR(S): Kelsey, Douglas Kenneth

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 299 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005021095	A2	20050310	WO 2004-US25591	20040825
WO 2005021095	A3	20050609		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
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CA 2532349	A1	20050310	CA 2004-2532349	20040825

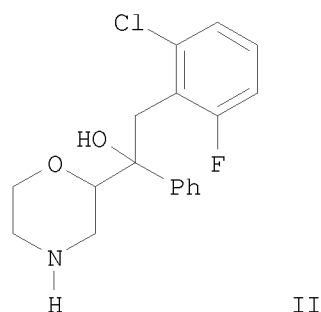
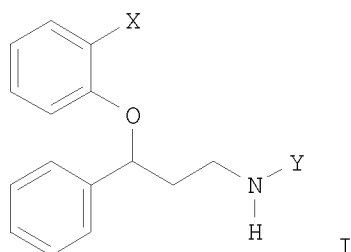
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EP 1660185          A2      20060531      EP 2004-780429          20040825
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US 2007032554      A1      20070208      US 2006-568269          20060214
PRIORITY APPLN. INFO.:      US 2003-498018P      P      20030827
                                WO 2004-US25591      W      20040825

OTHER SOURCE(S):      MARPAT 142:291416
GI

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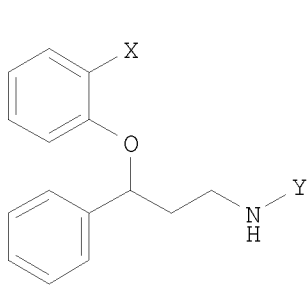


AB Provided are methods and medicaments for treating stuttering or another communication disorder, comprising administering to a patient in need of such treatment an effective amount of a selective norepinephrine reuptake inhibitor. The invention discloses the use of atomoxetine, racemic reboxetine, (S,S)-reboxetine, and compds. of formula I [wherein X = alkylthio and Y = alkyl; as described in U.S. patent Number 5,281,624], as well as their pharmaceutically acceptable salts, as the norepinephrine reuptake inhibitors described for treatment purposes. The invention further discloses the preparation of addnl. heterocyclic derivs. (as well as their pharmaceutically acceptable salts) that possess ability to serve as norepinephrine reuptake inhibitors. For instance, morpholine derivative II•HCl was prepared via alkylation of (4-benzyl-morpholin-2-yl)(phenyl)methanone with 2-chloro-6-fluorobenzylmagnesium chloride and subsequent N-debenzylation. The preferred invention compds. exhibited Ki values of less than 500 nM at the norepinephrine transporter (scintillation proximity assay).

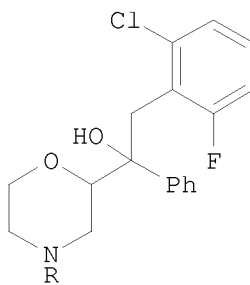
L9 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:216660 HCAPLUS

DOCUMENT NUMBER: 142:291415
 TITLE: Treatment of pervasive development disorders employing norepinephrine reuptake inhibitors
 INVENTOR(S): Allen, Albert John; Kelsey, Douglas Kenneth
 PATENT ASSIGNEE(S): Eli Lilly and Company, USA
 SOURCE: PCT Int. Appl., 300 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005020976	A2	20050310	WO 2004-US25593	20040825
WO 2005020976	A3	20050616		
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CA 2536161	A1	20050310	CA 2004-2536161	20040825
EP 1660065	A2	20060531	EP 2004-780431	20040825
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US 2006241188	A1	20061026	US 2006-568466	20060214
PRIORITY APPLN. INFO.:			US 2003-498146P	P 20030827
			WO 2004-US25593	W 20040825
OTHER SOURCE(S):			CASREACT 142:291415; MARPAT 142:291415	
GI				



I



II

AB Provided are methods and medicaments for treating a pervasive development disorder, comprising administering to a patient in need of such treatment an effective amount of a selective norepinephrine reuptake inhibitor. The invention discloses the use of atomoxetine, racemic reboxetine, (S,S)-reboxetine, and compds. of formula I [wherein X = alkylthio and Y = alkyl; as described in U.S. patent Number 5,281,624], as well as their

pharmaceutically acceptable salts, as the norepinephrine reuptake inhibitors described for treatment purposes. The invention further discloses the preparation of addnl. heterocyclic derivs. (as well as their pharmaceutically acceptable salts) that possess ability to serve as norepinephrine reuptake inhibitors. For instance, morpholine derivative II•HCl (R = H) was prepared via alkylation of (4-benzyl-morpholin-2-yl)(phenyl)methanone by 2-chloro-6-fluorobenzylmagnesium chloride and subsequent N-debenzylation of the obtained alc. I (R = Bn). The preferred invention compds. exhibited Ki values of less than 500 nM at the norepinephrine transporter (scintillation proximity assay).

L9 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:216659 HCAPLUS

DOCUMENT NUMBER: 142:291414

TITLE: Treatment of learning disabilities and motor skills disorder with norepinephrine reuptake inhibitors

INVENTOR(S): Sumner, Calvin Russell

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 304 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

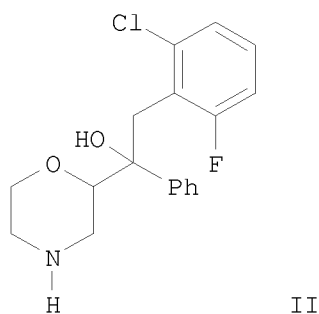
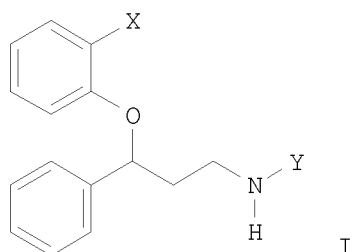
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005020975	A2	20050310	WO 2004-US25592	20040825
WO 2005020975	A3	20050602		
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2530014	A1	20050310	CA 2004-2530014	20040825
EP 1660064	A2	20060531	EP 2004-780430	20040825
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
US 2007105960	A1	20070510	US 2006-568244	20060214
PRIORITY APPLN. INFO.:			US 2003-498019P	P 20030827
			WO 2004-US25592	W 20040825
OTHER SOURCE(S):		MARPAT 142:291414		
GI				

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AB Provided are methods and medicaments for treating a learning disability or a motor skills disorder, comprising administering to a patient in need of such treatment an effective amount of a selective norepinephrine reuptake inhibitor. The invention discloses the use of atomoxetine, racemic reboxetine, (S,S)-reboxetine, and compds. of formula I [wherein X = alkylthio and Y = alkyl; as described in U.S. patent Number 5,281,624], as well as their pharmaceutically acceptable salts, as the norepinephrine reuptake inhibitors described for treatment purposes. The invention further discloses the preparation of addnl. heterocyclic derivs. (as well as their pharmaceutically acceptable salts) that possess ability to serve as norepinephrine reuptake inhibitors. For instance, morpholine derivative II•HCl was prepared via alkylation of (4-benzyl-morpholin-2-yl)(phenyl)methanone with 2-chloro-6-fluorobenzylmagnesium chloride and subsequent N-debenzylation. The preferred invention compds. exhibited K_i values of less than 500 nM at the norepinephrine transporter (scintillation proximity assay).

=> log y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

80.04	448.19
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

-11.20	-11.20
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